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IN

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HERBERT B. ADAMS, Editor.

History is past Politics and Politics are present History.—*Freeman*

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FIFTEENTH SERIES

I–II

HISTORY OF THE TOBACCO INDUSTRY IN VIRGINIA FROM 1860 TO 1894

BY B. W. ARNOLD, JR., Ph. D.

McCabe's University School, Richmond

BALTIMORE

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PREFACE.

The purpose of this paper is to give a fair account of the tobacco industry in Virginia since the civil war, viewing it from the standpoint both of the planter and of the manufacturer. Improvements in methods of culture, new inventions, and the technicalities of manufacture form no essential part of the subject-matter, and therefore have received but little mention. Markets, prices, distribution of profits, methods of sale and related subjects have been investigated, and these only have been treated at any length. The review has been made in an impartial spirit, and conclusions reached are based upon the historical facts presented.

Thanks are due to many manufacturers, leaf dealers and planters, for much help and valuable information, but in particular to Mr. Wm. E. Dibrell, editor of the "Southern Tobacconist and Manufacturer's Record," and Mr. J. F. Jackson, editor of the "Southern Planter," both of Richmond, Va., who have not only directed me to sources of information, but also have aided me with helpful facts and good counsel.

B. W. Arnold, Jr.

Richmond, Va., *December*, 1896.

HISTORY OF THE TOBACCO INDUSTRY IN VIRGINIA FROM 1860 TO 1894.

INTRODUCTION.

Tobacco was first discovered by Christopher Columbus in the island of Cuba, where it grew wild, the natives smoking it either in reeds or rolled in the form of cigars. The colony of Virginia was the first to introduce the cultivation of the fragrant weed, and John Rolfe, the husband of Pochahontas, inaugurated its systematic cultivation in the colony in the year 1612. In the year 1616 Captain George Yeardly, Deputy Governor, first directed the attention of the colonists to planting it for profit, showing that its culture promised large returns, and from this time on there was an enormous and rapid increase in the annual amount grown.

The importance of tobacco to the colony of Virginia cannot well be overestimated. It was for years its currency and basis of values, the chief subject of its legislation, and the very life of its trade and commerce. In "Tobacco in Tennessee," Commissioner J. B. Killebrew has shown how its cultivation made Virginia possible; that, as a country peopled by educated, refined men and women, the state owed its existence to the plant. Tobacco has always been the chief source of Virginia's wealth, the staple product which has contributed so largely to its material prosperity. In colonial days it was the sole commodity which could be exchanged with the mother country for manufactured goods at any reasonable profit. For this reason its culture engrossed the attention of all of the colonists and entirely subordinated the remaining agricultural and manufacturing interests. In 1617, when Captain Samuel Argall arrived in the colony, as its governor, he found all the public works

and buildings in Jamestown fallen to decay and not above five or six houses inhabited; the market-place, streets, and all other places planted with tobacco, and the colony dispersed, "as every man could find the properest place and the best conviency for planting."[1] It was because tobacco was the only crop that had proved remunerative. The search for gold had been abandoned by the colonists, and every other occupation and industry had been tried in vain. Disease, fatigue, exposure, the savage Indians, the perils of the wilderness were proving too hard for the newcomers and were rendering them hopeless and despairing. Nothing had succeeded; nothing had paid for the making until tobacco came. This had returned a large and rich reward for labor, and in thus bringing some promise of future wealth it had inspired the despondent colonists with new hope and encouraged them to further endeavors. The colony began to spread and to subdue the wilderness around in spite of the savage natives and the severe labor necessitated in clearing lands. Thus the check to decay and the stimulus to new growth and further development came from the profitableness of tobacco-growing.

A review of the colonial laws shows that tobacco gave full direction to legislation, since the majority of the statutes are only regulations concerning its culture, quality and sale. For a short while it was the source of direct revenue to the colony through a small export tax. An effort to make it yield a revenue to sustain the postal service led to an expression of defiance to the home country anterior to the resistance of the Stamp Act by more than half a century. The low price of tobacco was one of the causes which led to Bacon's Rebellion, and it was this also which hastened the war of 1776. The unfair dealings of the factors in England, burdening the planters with so much debt, and the heavy impositions placed upon the trade by the mother country through the system of indirect taxation, bred the

[1] Brock's Special Report on Tobacco for Census of 1880.

discontent which later, under the system of direct taxation, brought on the revolution.

The following table gives the growth of the trade from the year 1619 to 1775.

THE QUANTITY OF TOBACCO EXPORTED FROM VIRGINIA, AND THE PRICES, FROM 1619 TO 1775 (WITH INTERVALS), INCLUSIVE.[1]

YEAR.	CROP.	PRICES.	
	Pounds.	Per pound.	Per cwt.
1619	20,000	3*s.*	....
1620	40,000	8*d.* to 2*s.*	....
1621	55,000	....	....
1622	60,000	....	....
1628	500,000	3*s.* to 4*s.*	...
1632	....	6*d.*	....
1633	....	9*d.*	....
1639	1,500,000	3*d.*	....
1640	1,300,000	12*d.*	....
1641	1,300,000	20*d.*	....
1661	....	....	12*s.*
1662	....	....	10*s.*
1664	....	....	....
1666	....	....	....
1667	....	....	....
1682	....	....	10*s.*
1687	.. .	....	....
1688	18,157,000	....	....
1704	18,295,000	2*d.*	....
1729	....	2*d.*	....
1731	....	....	....
1739	....	....	12*s.* 6*d.*
1745	38,232,900	....	14*s.*
1746	36,217,800	....	....
1747	37,623,600	....	....
1748	42,104,700	....	....
1749	43,188,300	....	....
1750	43,710,300	....	....
1751	42,032,700	....	....
1752	43,542,000	....	....
1753	53,862,300	....	....
1754	45,722,700	....	....
1755	42,918,300	....	10*s.*
1756	25,606,800	....	....
1757	...	....	....
1758	22,050,000	....	50*s.*
1759	....	....	16*s.* 8*d.*
1760–1775	....	....	18*s.* to 25*s.*

[1] Brock's Special Report, Census 1880.

Since the peace of 1783 the annual exports from Virginia have not been so large. The Revolutionary War gave a check to the exportation of leaf tobacco from which it has never recovered. For 31 years immediately preceding the war the annual exports had steadily and regularly increased, but for the first 50 years after it they remained stationary, except when interrupted by wars or other commercial embarrassments. The explanation for this decrease was that the European countries, during the war, went extensively into the culture of tobacco and thereafter depended less on the western world for their supplies. The European governments had also checked the consumption of tobacco by very onerous taxation. The export trade of Virginia from the year 1800 to 1860 was as follows:

TABLE.[1]

Year.	No. Hhds.	Avg. Price per Lb.	Value.	Man'f'd. Lbs.
1800	78,686	....	....	457,713
1805	71,251	7⅜	$6,341,000	428,460
1810	84,134	5	5,048,000	529,285
1815	85,337	8	8,235,000	1,034,045
1820	83,940	8	1,188,188	593,358
1825	75,984	6⅞	5,287,976	1,871,368
1830	83,810	5½	5,833,112	3,199,151
1835	94,353	7¼	8,250,577	3,817,854
1840	119,484	6¾	9,883,657	6,787,165
1845	147,168	4¼	7,469,819	5,312,971
1850	145,729	5⅝	9,951,023	5,918,583
1855	150,213	....	14,712,468	9,624,282
1860	167,274	....	15,906,547	17,097,309

In the period since 1860 tobacco has not claimed the attention of so large a percentage of the state's population as it had hitherto. Directly after the civil war it was necessary that the farmers for several years should make food

[1] From a circular by John Ott, Secretary of Southern Fertilizer Company, Richmond, Va., 1876.

crops, and they were consequently more or less diverted from tobacco-growing. Freeing the slaves also necessitated the abandonment of the plantation plan of cultivating large areas. Finally in manufactures there have arisen since the war many industries which compare favorably at present with tobacco manufacture in value of output. Previous to the war the main interests of the state were agricultural, and with the exception of tobacco, iron, flour and lumber, manufactures were of comparatively little importance. These four industries engaged 46 per cent. of the state's total capital employed in manufacture; the value of their annual products was 65 per cent. of the total for the state, while the cost of their material was 74 per cent. Tobacco manufacture alone employed 31 per cent. of the hands working in factories, and furnished a product whose value was 24 per cent. of that of the whole state. Evidently general manufactures had been little encouraged and were poorly developed. The mercantile, commercial and manufacturing industries had been little sought. They did not promise that independence of position, that social distinction, wealth and leisure which the planters enjoyed who had large estates and numerous slaves to till them. Without laboring themselves, they were in a position to dispense a generous hospitality, and had the means and opportunity for storing their minds with knowledge and gaining broad and liberal culture. The mechanic, artisan, or tradesman, who had to labor with his own hands and struggle for a livelihood, was unable to do this, and consequently occupied a less honorable place in society. The depression of this useful and important class seemed to be inevitably connected with the system of negro slavery.

But after the war all this was changed. Instead of there being a preference for country life over city life, there was found a general drifting of population from the rural districts to the towns, and a tendency to engage in business, commerce and manufactures. The towns began to grow, small industries of every sort arose, and manufactures in

general received much more attention. In 1860 there were only 12 manufacturing industries in Virginia which employed as much as $500,000 capital, and only 7 of these with a capital of $1,000,000; in 1890 there were 21 with a capital of $500,000, and 13 with a capital of $1,000,000.

Though tobacco is no longer the all-absorbing industry of Virginia, and its importance relative to the other industries is not so great as formerly, it still remains the chief industry of the state, the money crop of the farmers, the mainstay and support of the state's commerce. Tobacco has built and supported most of the prospering, well-established cities and towns of Virginia. Their finest residences, hotels, chambers of commerce, educational institutions and public buildings have, for the most part, been built by profits from tobacco.[1]

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[1] Danville's growth from a population of 3,463 in 1870 to over 20,000 in 1894 was due almost entirely to the bright tobacco grown in that section. Two-thirds of the factory hands of the place are engaged in the tobacco manufactories, and about one-half of the total population are employed either in the plug factories or leaf houses. This town has paid out to tobacco planters since 1870 $79,782,312.

Lynchburg is called the "Tobacco City." Previous to 1860 the tobacco business was the only one of much importance in the place. Capital and industry sought no other channel. A citizen of Lynchburg was a tobacconist or he was nothing, and a stranger entering the town came either to buy or sell tobacco. During the seventies, however, other enterprises gained footing, and, growing rapidly, occupied to a large extent the attention of its citizens. Its tobacco trade was also injured somewhat by the establishment of many factories around it, in every part of the tobacco-growing belt formerly tributary to Lynchburg, which reduced the supply of raw material coming to this market. Notwithstanding these facts, tobacco is still the life of Lynchburg's trade, and while it has found a rival in the growth of other enterprises, it remains as ever supreme.

As to Richmond, tobacco, in the leaf trade and in manufacture, forms 25 per cent. of the city's total industry. The trade aggregates annually from eight to ten million dollars, and it employs almost as great a capital as the banks of the city. The leaf trade alone supports 120 members of the Tobacco Exchange. Here reside the "regie" purchasers for the governments of France,

Having taken this general survey of the history of the tobacco trade in Virginia, a more particular study will be made of the period from 1860 to 1894. This study naturally divides itself into two parts; the first treating of the production and sale of the leaf, the second, of the manufacture and disposal of the finished product. As the cigar industry forms but an insignificant part of the tobacco interest of Virginia, little account will be taken of it. Virginia excels in the manufacture of cigarettes, chewing and smoking tobacco.

Italy, Spain and Austria. The exports from Richmond and Petersburg are almost exclusively of tobacco.

In 1880, of the total capital invested in the manufactures of Richmond, 28 per cent. was in tobacco manufacture; of the amount of wages paid, 35 per cent.; of value of material used, 33 per cent.; of value of product, 38 per cent. In Petersburg the percentages were still greater; of a total capital, 37 per cent. was invested in tobacco; of hands employed, 68 per cent.; of wages paid, 57 per cent.; of value of material, 72 per cent.; of value of product, 68 per cent.

PART I.

PRODUCTION.

CHAPTER I.

The Relative Rank of Virginia among the Tobacco States.

In 1860 Virginia produced more tobacco than any other state of the Union. The product of Kentucky, the second state of importance, was less than Virginia's by almost 16,000,000 pounds. The other principal tobacco states were Tennessee, Maryland, North Carolina, Ohio and Missouri, named in the order of precedence. Virginia raised more than three times as much as Tennessee, Maryland or North Carolina, and over four times as much as Ohio or Missouri. Her product was greater by 13,000,000 pounds than the total for the three states of Tennessee, Maryland and North Carolina. Alone she produced one-third of all the tobacco grown in the United States, and, with Kentucky, more than half. However, Virginia did not long enjoy such superiority. During the sixties, when the people were engaged in war and her fields were left untilled, the western states, and particularly Kentucky, entered extensively into tobacco-growing, and it was only a short while before the rival state had taken the place of honor. In 1870 Kentucky could boast of a production three times as large as Virginia's, and alone could claim 40 per cent. of the whole crop of the United States. Virginia still led the other states, but not at so great a distance. Ohio grew one-half as much as Virginia, and Tennessee almost three-fifths as much, while the least productive state, North Carolina, produced one-third as much as Virginia.

Since 1870 the state has held its own. Its relative position during this time is given in the following tables:

Relative Rank of Eleven Principal States.[1]

	Acreage.			Production.			Total value.			Av. val. per acre.	
	1879,	'89,	'93.	1879,	'89,	'93.	1879,	'89,	'93.	1879,	'89.
Kentucky,	1	1	1	1	1	1	1	1	1	7	7
Virginia,	2	2	2	2	2	2	2	3	2	10	8
Ohio,	6	5	5	4	3	7	5	4	8	5	5
North Carolina,	3	3	3	6	4	3	4	2	4	6	6
Tennessee,	4	4	4	5	5	4	8	6	5	11	10
Pennsylvania,	7	6	6	3	6	5	3	5	3	2	3
Wisconsin,	9	8	7	10	7	6	9	7	7	4	4
Maryland,	5	7	8	7	8	9	7	10	10	8	11
Missouri,	8	9	9	9	9	10	11	11	11	9	9
New York,	11	10	10	11	10	11	10	9	9	3	2
Connecticut.	10	11	11	8	11	8	6	8	6	1	1

States and Territories.	Average value per acre. 1880–89.	Average yield per acre. 1880–89.
		Pounds.
Maine	....	....
New Hampshire	....	....
Vermont	....	....
Massachusetts	$204 28	1485.4
Rhode Island	....	....
Connecticut	196 58	1417.1
New York	159 56	1339.6
New Jersey	....	....
Pennsylvania	143 22	1205.3
Delaware	....	....
Maryland	44 24	662.7
Virginia	44 85	596.1
North Carolina	51 21	480.8
South Carolina	....	....
Georgia	....	....
Florida	....	...
Alabama	....	....
Mississippi	....	....

[1] Compiled from the Census Reports 1880 and 1890, and U. S. Agricultural Report 1893.

States and Territories.	Average value per acre. 1880-89.	Average yield per acre. 1880-89. Pounds.
Louisiana	....	....
Texas	....	....
Arkansas	50 22	578.0
Tennessee	48 30	645.4
West Virginia	56 29	609.5
Kentucky	58 63	755.2
Ohio	66 28	912.8
Michigan	64 24	503.6
Indiana	49 43	721.7
Illinois	48 18	651.9
Wisconsin	101 45	967.2
Minnesota	....	....
Iowa	....	....
Missouri	63 27	802.4
Kansas	....	....
Nebraska	....	....
California	....	....
Oregon	....	....
Nevada	....	....
Colorado	....	....
Arizona	....	....
Dakota	....	....
Idaho	....	....
Montana	...	....
New Mexico	....	....
Utah	....	....
Washington	....	....
Wyoming	....	....
Average	$61.51	727.1

CHAPTER II.

The History of Tobacco Production.

The history of production divides naturally into three periods: First, decreasing production from 1860 to 1871; second, increasing production from 1871 to 1885; third, decreasing production again from 1885 to 1894. These changes are seen in the figures of the following table, which gives Virginia's annual production from 1860 to 1894. The table is followed by explanations of the increase or decrease in the different periods.

Year.	Pounds.	Year.	Pounds.	Year.	Pounds.
1860	123,968,312	1872	48,000,000	1884	99,763,000
1861	....	1873	50,000,000	1885	107,711,000
1862	...	[1]1874	35,000,000	1886	91,189,000
1863	....	1875	57,000,000	1887	79,408,000
1864	....	1876	49,000,000	1888	64,034,000
1865	....	1877	....	1889	48,522,655
1866	114,480,516	1878	89,940,000	1890	....
1867	90,000,000	1879	86,524,200	1891	....
1868	93,600,000	1880	78,421,860	1892	....
1869	65,000,000	1881	77,649,854	1893	68,599,998
1870	43,761,000	1882	89,287,332	1894	35,593,984
1871	39,384,000	1883	64,865,972		

Section 1.—1860-1871.

The enormous decrease in these years is explained mainly by the fact that Virginia had sustained such heavy losses during the civil war. She produced little because

[1] The fluctuations from year to year are accounted for largely by variations in seasons, favorable or unfavorable. The year 1874 was a notably bad year for tobacco growers, only a half crop being raised. The table is prepared from Virginia and U. S. Agricultural Reports.

she was unable to produce more. Her fields were grown up in brambles and weeds; her fences, buildings and live stock were gone; her citizens were without money and with no ready means of commanding it. The planters raised all the tobacco they could, for prices were abnormally high, but they could only grow small crops, lacking capital and labor necessary for growing larger ones. They could raise in 1860 123,000,000 pounds with more ease than they could 39,000,000 pounds in 1871. The state could barely produce 36 pounds per capita in 1870, though she had produced 100 pounds per capita in 1860. She had lost productive power. In the first place her soil had been neglected and abused; secondly, her population was reduced; thirdly, her capital and credit were gone. Labor had been lost in the emancipation of the slaves; managing ability and labor in the death of soldiers, in the emigration from the state before and during the war of many foreigners who had not favored the cause of the Confederacy, and lastly, in the general drifting north and west immediately after the war of many young Virginians, who despaired of success at home under such adverse circumstances and moved out where prospects seemed brighter. Capital had been lost in the destruction of railroads and in damage to public and private property of every sort; the state had no currency and her banks were all insolvent. Her credit was lost by reason of the unsettled condition of her politics. Under these hard conditions little could be expected; agriculture was the chief industry, and this had suffered the heaviest losses; the planters were left their lands and taxes, but nothing more.

Another fact which lessened production was the inauguration of a new system of culture which was necessitated by the emancipation of the negro. The old system had been that of cultivating immense plantations with gangs of slaves, bossed by overseers, who forced the work without let or hindrance. The planter was a business manager

never rented, for he found it more profitable to grow food upon them for raising negroes, since these returned from mere increase in numbers from 6 to 10 per cent. upon the capital invested. The new system was that of small farms, worked either by the owner himself, by hired labor, or by tenants on shares. The agents of production in the new order were less efficient than in the old, and, moreover, the simple readjustment of forces occasioned some friction and loss of productive power. The planter and his sons were ignorant and unskilled in methods of farming. Even the slave bosses had taken no personal part in tilling the soil, much less the wealthy planter and the young masters. The latter had spent their time in politics, self-culture, pleasure and hospitable entertainment. Tilling the soil had been the occupation of the negro heretofore, and false pride made many whites refuse to engage in it at all. Again, the negro was not as good a laborer in the new as in the old system. Many of them would work for "neither love nor money," and the labor of the few that could be persuaded to work was expensive, for overseers had to be employed to insure efficient service. The majority became so self-important in their new liberty that they refused to "hire out," but must needs rent farms on shares. They were in a position to force their claims, and the negro share-owner became a new factor in the production of the state. As he took many holidays, being a faithful attendant upon all camp-meetings, political gatherings and church festivals, he did not add much to the sum-total of the state's production.

The third cause for the decreased production was the imposition of heavy taxes upon the manufactured product. The average amount of tax on the different grades of tobacco in 1863 was 10.96 cents per pound; in 1865 it had advanced to 22.08 cents, and in 1866 it had reached the high figure of 34.77 cents. It declined a little in the next five years, but in 1871 it was still as high as 26.87 cents. The taxes on chewing and smoking tobacco, which formed the

main part of Virginia's manufactures, were higher still. These ranged in 1864 from 15 to 20 cents, and in 1865 from 30 to 40 cents, according to quality. They continued as late as 1868.

The burdensome effect of these taxes upon production came through consumption. Paying 30 and 40 cents to the government on every pound of tobacco made, the manufacturer could only offer his goods at very high prices. Many who wanted tobacco were unable to buy it; the effective demand for the manufactured article was lessened, and this was reflected in a lower price for the leaf. The tax also lessened the number of buyers of leaf tobacco by restricting the manufacturing business to men of large capital. The man of small means could not pay the tax or give the necessary bond, and he had therefore to discontinue business. This meant one less buyer for the farmer's product.

Again, the manufacturers who entered the business and paid the tax were smaller buyers of leaf than they would have been without the tax. The necessity of advancing this to the government forced them to keep a part of their capital out of their business; this left them less money with which to accumulate profits, and hindered them for some years from doing business on a large scale. Thus the revival of manufacture was slower with the tax than it would have been without it, and therefore the consumption and demand for leaf were less.

Prices were also affected by the fact that only licensed dealers could buy tobacco. Previous to this the farmer could sell his product to any purchaser he might find, and frequently his market was his own tobacco barn. The agents from the factories came to the plantations and made their offers; the farmer considered the bids, and, if satisfactory, sold; if not, he left the tobacco hanging in his barn. The crop was in his own house, and no expense was incurred by allowing it to remain there. At the warehouse in the city he was forced to accept the offer of the

highest bidder. It was in another man's barn, and the storage charges were steadily accumulating.

Lastly, besides the depreciation in value of the leaf, the planter had suffered still another loss. The tax had robbed him of a profit coming from the crude manufacture of the staple. Previous to the war the home industry formed no small part of the manufacture of tobacco; as the natural leaf was in strong demand, and not artificial flavorings as at present, the good old-fashioned home-made twist always found ready sale.

To summarize, the three main causes for decreased production were:

1. Virginia had been a battle-field for four years.
2. The negro had been emancipated and a new system of culture had been introduced.
3. Tobacco had been heavily taxed.

Section 2.—1871-1885.

The steady increase in these years may be partly explained by the facts that the planter had recovered in a great measure from the evil effects of the war, that he had become better acquainted with the new system of culture, and that he had learned the most profitable way of handling the freedman. In addition to these, six other causes may be mentioned which greatly favored production, viz., the lowering of the tax, the extensive use of commercial fertilizers, the introduction of improved methods of curing, the publication of much good literature on tobacco culture, the renewal and extension of the railroads, and the general development of small manufacturing towns.

In 1871 the average tax on all grades of tobacco was 26.87 cts. per pound; in 1875 it was 21.10 cts.; for the next three years it was raised to 24.24 cts., but in 1880 it was lowered again to 16 cts., and in 1884 to 8 cts. The tax on chewing and smoking tobacco was lowered in this period from 40 cts. per pound to 8 cts.

The census report of 1880 calls attention to the fact that commercial fertilizers had been very extensively employed by the tobacco planters since the year 1870. In many counties of Middle and Piedmont Virginia from 70 to 80 per cent. of the tobacco crops were fertilized with special manures, using from 150 to 300 pounds, at a cost from $3.00 to $9.00 per acre. In the tobacco counties of Southside Virginia the use of commercial fertilizers was general. From 150 to 500 pounds were employed to the acre. In 1884 there were as many as 211 different brands of commercial fertilizers sold in Virginia, and 65 of these were manufactured in that state. The large employment of manufactured manures increased production in two ways: it extended tobacco culture to poorer soils, and it increased the yield per acre.[1]

The improvements made in curing were, first, the substitution of coal for wood in firing tobacco, and afterwards the substitution of flue-curing for the process of coal-curing. This meant an economy in fuel, time and labor; less wood was required to heat the flues, less time was taken in setting the colors, and labor was no longer expended in burning the coal-pits. Moreover, the risk of burning the barns was lessened and better cures were insured, since the heat could be more easily regulated with flues than with coal or wood.

The instructive articles on tobacco published at this time increased production by educating the old planters in the best methods of culture and curing, and also by inducing

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[1] Many soils with guano could produce a fine grade of tobacco which without it could grow none, as was the case with some sections of Henrico County, Va. The border counties of Virginia and North Carolina, covered for years with dwarf oaks, broom-sedge and pines, were reclaimed by the use of commercial fertilizers, and were converted into the choicest of lands for growing a particular variety of bright yellow tobacco. It was claimed, in the Blue Ridge district, that the yield per acre was increased from 25 to 75 per cent., and the quality from 10 to 20 per cent.; the Middle counties claimed an increase of 20 to 50 per cent., and the Southern counties, from 25 to 200 per cent.

many inexperienced farmers who had never raised tobacco to undertake the crop. Among these articles may be mentioned the helpful essays appearing in the "Southern Planter," and several papers on curing tobacco, written by Captain A. Slade, of Caswell Co., N. C. Major R. L. Ragland's famous pamphlet entitled "From the Plantbed to the Warehouse," published first in 1871, went through ten editions.

The reconstruction and extension of the railroads were made possible through the influx of northern and foreign capital. This capital began first to seek investment in Virginia in the early seventies when her interest laws were changed. On the 15th of March, 1870, the legal rate of interest was raised from 6 to 12 per cent.; it continued at this high figure until 1872, when it was lowered to 8 per cent., where it remained until 1874, when it was again lowered to 6 per cent. During these 4 years, when the law sanctioned such high returns on loans, the inflow of capital began. Another cause for this inflow was the publication of a handbook in 1868 by Commodore M. F. Maury, entitled a "Physical Survey of Virginia." The author, in making known the geography of the state, its commercial advantages, etc., showed that Virginia offered exceptional advantages for the investment of capital, and as he was a man of wide reputation, his statements won the confidence of moneyed men at home and abroad. In this way he aided greatly in procuring the large capital that was needed for restoring the old railroads to efficiency and for building the new ones needed in the full development of the state. The increase of mileage in railroads in this period was over 67 per cent.; there were 1449 miles of railroad in 1870 and 2430 miles in 1885. Most of the new roads were laid in the Valley and Appalachian portions of the state. The soil here was not favorable to tobacco, and for that reason the effect of these roads upon the state's tobacco industry was of no marked importance, though their influence upon the general trade of these sections was marvellous. They

furnished new and different markets and changed both the character and direction of the trade. All they accomplished for tobacco was to extend somewhat the field of cultivation. The roads did not create any new tobacco markets nor establish small manufacturing towns; the quality of the soil forbade this. But it was quite different with the railways built on the east of the Blue Ridge in the tobacco section proper. Railroad building here consisted mainly in restoring to efficiency the old existing roads which had been torn up or gone to ruin during the war, and in laying a few local narrow-gauge branches from these out to some lumber depot, fertilizing establishment or coal mine. These roads did not change the main markets of this portion of the state, nor did they build any new large markets, for these had already been determined by the water-courses, but the roads did create and support for some years many smaller markets. Leaving the water-courses and cutting directly across the country to make shorter connections between the principal markets already established, they developed many small inland towns, which in a few years became leaf markets and active manufacturing centers.[1] Between 1870 and 1880 there were as many as 26 villages on the different roads, the tobacco trade of each of which supported one or two factories.

A final cause for increase was the fact that agriculture shared the benefits accruing from the state's newly acquired capital.

To summarize: increased production in these years was due to—

1. Recovery from the evil effects of the war.
2. A full understanding of the new system of culture.
3. Lowering of the tax.

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[1] Bedford City, on the Norfolk & Western R. R.; South Boston, on the Richmond & Danville; Martinsville, on the Danville & New River Road; Farmville, on the Norfolk & Western; Frederick Hall, on the Chesapeake & Ohio, and Chatham, on the Virginia Midland, may be cited as such markets.

4. Use of commercial fertilizers.

5. Introduction of improved methods of curing.

6. The appearance of much good literature on tobacco culture.

7. Railroad building.

8. General development of manufacturing towns.

9. The fact that agriculture received a part of the new capital which came into the state.

Section 3.—1885-1894.

In this period there was a partial or entire abandonment of tobacco-growing by many of the most progressive farmers. The crop was proving less profitable than formerly. Good tobacco of medium quality which had been bringing from 12 to 25 cts. per pound was hardly wanted at prices from 6 to 15 cts. There were several causes for this decline. The village factories had disappeared, competition with the city factories having driven them from the field. The small factory began to lose its trade as soon as extensive advertising became necessary. It did not have sufficient capital for the manufacture of well-known brands, and for this reason had to give up much of its territory to larger factories and to content itself with supplying the small local trade of its own neighborhood. Since the small manufacturer had lost trade and was forced to limit his output, he was unable to run his factory regularly and to its full capacity. He could therefore no longer furnish steady employment to his whole force. When the hands were dismissed they could not find in a small village sufficient job work to support them until the factory commenced operations again, and the best of them soon left for larger places, where they could either get regular employment or have better opportunities for finding work from day to day. This meant not only loss for the village manufacturer, but also a decided gain for the city manufacturer. The latter had more and better hands to select from and could employ

or dismiss them as best suited his convenience in filling orders. But following out the principle "that unto him that hath shall be given, and from him that hath not shall be taken away even that which he hath," it happened that no sooner did the village factories lessen their output (which meant a smaller consumption of leaf and lower prices) than the farmers began to ship their best tobacco to other markets which offered better prices. This left only inferior material for the village factory, while it furnished the choicest for factories located in large markets. The city factory enjoyed two other advantages: it was nearer supplies of all sorts, which saved freights; and secondly, it received special rates from the railroads on its goods, while the village factory had to pay high local rates. The discriminations in railroad charges, and indeed the railroad building of recent years, have favored the larger factories and have assisted in centralizing manufacturing interests.

Another cause for concentration and low prices in this period was the organization in the year 1890 of the American Tobacco Company, an incorporation of the leading cigarette factories north and south, which bought and sold under one management, and which had sufficient capital practically to control the prices of all cigarette tobacco, as well as the sale of all cigarette goods. The company placed a buyer in every market of importance in the state, authorizing him to buy all "cutters" suitable for its purposes and to allow no tobacco of certain classes to go to buyers for other factories except at unprofitable prices. This monopoly of "cutters" made the small markets poor ones for the agents of the large factories, who needed certain amounts of every class, and in the end it compelled the best buyers to abandon the small markets altogether. They located in the cities and made their occasional orders for leaf through the old resident manufacturer, who had already converted his factory into a warehouse or "reprizery," since his best hands and material had been lost. Thus factory life disappeared from the villages, competition was lost in the

smaller leaf markets, and prices on all grades of tobacco were lowered. Ninety per cent. of the 25 villages mentioned above as having one or two factories have either closed them altogether or else do a small business for a few months in the summer, making a medium grade of chewing tobacco to sell through the country stores to farm-hands.[1]

The next explanation for lower prices, particularly of "brights," was the great extension of tobacco-growing in the states south and east, where the low price of cotton had influenced many farmers to experiment with the plant. The average value of cotton per acre in the eleven cotton-growing states for the ten years preceding 1890 had been $15.69; the average value of tobacco in the 17 tobacco states had been for the same ten years $61.51. Figures for North Carolina in the same decade showed that an acre in tobacco had brought the farmer 300 per cent. more than an acre in cotton. The southern cotton-planters saw this chance for profit and began diversifying their crops. They were encouraged and instructed by the agricultural papers and organizations within their states; the tobacco journals all over the country were filled with able articles giving explicitly and in detail the best methods of culture and curing. The fertilizer companies issued numerous pamphlets for advertising purposes which contained helpful information, while the Boards of Trade and Government Experimental Stations did all they could to encourage farmers in tobacco culture. The increase in tobacco-growing in several states is shown by the census statistics of crops for the years 1879 and 1889.

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[1] It is true that the American Tobacco Company has placed numerous agents all through the country to buy tobacco directly from planters, and in this way has furnished new markets, but the purpose in establishing these agencies has been to avoid the competition of larger markets, and therefore prices have not been raised.

States.	Acres in Tobacco. 1879.	1889.
Florida,	90	1,190
N. Carolina,	57,208	97,077
S. Carolina,	169	394
Ohio,	34,676	44,303
Tennessee,	41,532	51,471
Kentucky,	226,120	274,587

Production was stimulated in these states, and particularly in Georgia, by the introduction of an improved method of cutting, housing and curing. The tobacco was often cured off the stalk, and not on it as formerly, the leaves being stripped as they ripened, which saved the lower leaves that before had wasted as the plant matured.[1]

But there was yet another cause for this extension south and east which probably had as much influence as all the others together, viz., Major R. L. Ragland's seed farm in Halifax County, Va. This is the largest institution of its kind in the United States. The farm had in the summer of 1895, 150,000 tobacco plants turned out for seed, representing 145 of the finest and best varieties known. The exceptional quality of the seed has influenced the largest wholesale and retail dealers to send to this farm for their supplies every year; the warehousemen, appreciating the value of select varieties, are liberal buyers, and in distributing these seeds gratuitously among their customers, extend their patronage. The Agricultural Department at Washington and consuls to foreign countries send in yearly orders to the farm for seed for distribution. When one takes into account the facts that there are 875,000 seeds to an ounce, that one-half an ounce is more than enough to insure plants for an acre, and that 75 bushels is the amount of the annual sales from this farm, one gains some idea of the influence it has had in extending production.

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[1] Snow's Modern Barn System of Curing Tobacco.

With this extension south and east, how were prices in Virginia lowered? First, the markets of Virginia (and North Carolina) were the markets for this tobacco until enough was raised in a state to support a home market. The supply in the old markets was thus largely increased. Second, the new tobacco was mainly bright, which class had hitherto brought the fancy prices; as some of this was of first quality, it swelled the supply of this particular grade and the result was a good price, but not a fancy one. Third, as the larger part of this new tobacco was of medium quality or nondescript—for the planters, being inexperienced, had spoiled much—when pushed into the old markets it lessened the general demand for "brights," injuring somewhat the reputation of this particular class. Fourth, since the seasons were longer in these southern states than in Virginia, their tobacco matured earlier and could be marketed before Virginia tobacco. Fifth, as the land in some of these new sections was fresher than Virginia soil, and as the farmers had adopted from the start improvements and inventions that saved labor, their tobacco was produced at less cost, and could therefore be sold at lower prices.

The last cause for a general lowering of prices in the latter part of this period (1885-1894) was the long stagnation in business due to the financial panic of 1893.

To summarize: the causes for lower prices and smaller profits in this period were—

1. Disappearance of factory life in the villages.
2. Formation of the American Tobacco Company.
3. Extension of tobacco-growing in other states.
4. Financial panic of 1893.

CHAPTER III.

SECTION I.—TYPES OF VIRGINIA TOBACCO.

There has been some specialization in the kinds of tobacco grown in Virginia. In 1860 the bulk of the tobacco produced could have been divided very fairly into two main classes.

First, the dark, heavy export tobacco, full of nicotine and creosote, cured often by air alone, but more generally by smoke and open wood fires.

Second, the red and mahogany manufacturing grades, cured in the sun or by coal fires.

These two classes are not exhaustive, for, as stated before, as early as 1850 some yellow tobacco was raised in one county of the state—Pittsylvania. However, this bright variety was not extensively produced until after the civil war. The crude methods for curing prevented a large production. Mr. John Ott, who is an authority on matters relating to tobacco, especially in Virginia and North Carolina, states that it was as late as 1856 when this type was first grown in North Carolina (by Abishia Slade). As this state had made some advance in the culture of this variety before Virginia attempted it, the assumption is fair that in 1860 this class formed but a small part of Virginia's crop. But between 1867 and 1870 it became a distinct class. Mr. Ott, in an article written in 1875, gave these types of Virginia tobacco:

A. Large, heavy, waxy, dark tobacco, esteemed so highly by European buyers.

B. Fine sun-cured mahogany, for the smoking and chewing demands of this country.

C. Bright yellow, used in adorning the plug filled with darker tobacco; also used for smoking.

He estimated that within a few years Virginia would

have a fourth type to add to her list, viz., a variety suitable for cigars. This variety has been attempted in some of the Tidewater counties, and has been grown on Ragland's seed farm in Halifax County, but has never been cultivated to any considerable extent in the state. It should not be classed with Virginia tobacco.

In the Census Report of 1880, Virginia tobacco is classified by R. L. Ragland into five distinct types, viz., 1. Dark Shippings; 2. Red and Colored Shippings; 3. Sun and Air-cured Fillers; 4. Bright Yellow Wrappers and Fillers; 5. Orange and Mahogany Flue-cured Manufacturing. These are again subdivided into as many as 18 smaller classes, *e. g.*, the Red and Colored Shipping is divided into three classes: 1. Bright spangled; 2. Mahogany; 3. Cherry red. The Dark Shipping into 1. Dark, rich waxy, English leaf; 2. Nutmeg and Mahogany leaf, English and Continental, etc.

This classification is exhaustive and would embrace all classes produced to-day. The numerous classes are not to be understood, however, as so many new varieties introduced between 1875 and 1880. The five main heads are more or less included in the three classes first mentioned. The idea to be conveyed by the comparison of these classifications is simply that there has been more and more specialization in tobacco production. Some new, distinct varieties have been introduced, but for the most part the types are the same, only differently handled to meet special needs of certain markets.

Section 2.—Changes in Demand.

During the years immediately preceding the war, the markets both in the United States and foreign countries handled chiefly dark tobaccos. The "brights" had not been produced long enough, nor in sufficient abundance, to give the home and foreign markets full acquaintance with them. The domestic trade had not as yet fully appre-

ciated their good qualities, and the export trade had had no opportunity to learn them. The French, who were fastidious in taste and epicures in everything, had already shown a preference for milder grades of tobacco, and had been getting for some years a piebald grade, which, though cured with open wood fires, was so slowly cured that it was made yellower than the average export grade, and was not so strong with nicotine and smoke. But this was not at all like the bright yellow tobacco which Virginia and North Carolina began to produce in a small way immediately before the war, when the process of coal-curing was introduced, and so abundantly after it, when the process of flue-curing was perfected. The small amount of bright tobacco grown at this time was all used at home, and even here its advantages for manufacturing purposes were not widely known. The factories still demanded the rich dark grades; sweet sun-cured, wine-colored fillers, and waxy, mahogany wrappers.

But in the seventies, ten or fifteen years after this, the bright tobaccos were in full demand all over the United States. The change had come about in this way. While Virginia and North Carolina were engaged in war, and their factories and trade were stopped for so many years, other states, and notably the western ones, Kentucky, Ohio and Missouri, entered entensively into the cultivation and manufacture of tobacco. Since heavy taxes had been laid and much capital was needed to enter this business, these states, which had suffered little from war, were able to do business on a much larger scale than the southern states, whose losses were so serious. They began in 1874 a big system of advertisement, which put the Virginia factories at a great disadvantage; the latter were unaccustomed to this method of sale, and they were also unable to adopt it extensively. Virginia had been in the habit of selling, on its merits alone, about one-third of all of the manufactured tobacco used in the United States, and naturally felt that this long established reputation would

continue its sale. The manufacturers were slow to advertise even as much as they could. The results were that the Virginia tobaccos were not kept before the public, while the western brands were, and that the public, being unable to procure the former, acquired a taste for the latter.

The new western tobacco was very different from the Virginia type. The plug was a soft, cheesy, sweet one, made from a variety of leaf called the White Burley, which had proved especially suited to the grassy soils of the western states, and which has since enjoyed an unrivalled reputation as a filler. The main quality which recommended it so highly for manufacturing purposes was its absorptive power. Being a tough, spongy, porous leaf, it would absorb flavoring to the amount of 25 to 40 per cent. of its own weight; the Virginia leaf had little absorptive power, and would funk and damage if too much sweetening material was put upon it. The western filler was also cheaper; the cost of production was less where fresh grass lands were used than where old worn-out soil was employed or where timber lands had to be cleared. Moreover, the process of air-curing employed with the Burley leaf was less expensive than that of flue or coal-curing. Another advantageous quality was its mildness; it made a popular chew. With these points in its favor, it was natural that the western filler should be largely substituted for the Virginia filler. In the year 1881 the "Southern Planter" wrote as follows concerning this change: "The White Burley produced in the west has now thoroughly substituted our dark grades, both for manufacturing and shipping, so much that few men in the trade have the courage to deal in either. Many plug manufacturers never go into the Tobacco Exchange (Richmond), and one shipper receives from an English correspondent an order to send no more Virginia leaf, as the White Burley now rules the roost." The Richmond manufacturers were using at this time about five times as much Burley as Virginia leaf.

This full substitution of western tobacco naturally re-

sulted in a smaller demand for the average Virginia filler, but it increased the demand for another grade, viz., the bright yellow type, which was being produced extensively at this time in the counties bordering on the North Carolina line. A fine golden wrapper was wanted to put around the plug formed of the Burley filler to beautify it; a combination of the Virginia bright leaf and the western mild leaf promised to meet popular demand and to make wide sales. The bright plug was introduced, and for ten years it ruled the market and was the rage and fashion of the domestic trade.

Another potent influence in increasing the demand for bright tobacco in these years was the development of cigarette manufacture. This business was introduced to the world at the Exposition in Philadelphia in 1876 by John F. Allen & Co., of Richmond, Va., who made at that time a very creditable exhibit of their goods. They were not then at all aware, however, of the great future of cigarettes, for fine plug, fine cut and smoking tobaccos were their leading brands, and cigarettes were only packed for the trade in order to sell those brands. But no sooner were the new goods presented to the public than there arose a large and ever-increasing demand for them, and cigarette machines being invented soon after this, the business grew marvellously, far beyond the expectation of the firm which had introduced them.[1]

Another effect of the cigarette exhibit at the Exposition

[1] The profitableness of the business will be seen from this short paragraph, appearing in the "Southern Tobacconist and Manufacturer's Record" for 1892, headed "Cigarette Millionaires." "Major Lewis Ginter's total wealth is valued now at $13,000,000; he made every cent of this in cigarettes. He might have been worth one-fourth as much more, for he had the habit of giving this much of his income regularly to charity. Mr. Francis Kinney is worth $10,000,000; George Arents, Maj. Ginter's nephew, is worth $3,000,000; John Pope, Ginter's partner, is worth $2,000,000. Mr. Wm. Marbury, Mr. P. Whitlock, Mr. Wm. S. Kimball, Mr. Butler of the Kinney Branch, Mr. Emery of Goodwin Branch, each have a million and over."

was to increase the demand for bright tobacco abroad. The foreigner had gotten at this time his first taste of Virginia bright leaf and he preferred it to the Turkish yellow leaf which had been his only dependence hitherto for smoking purposes. The foreign demand was stimulated also by the publications of Mr. John Ott, who had collected many favorable data on bright tobacco and had spread the information broadcast in pamphlet form all over England and America. He wrote concerning the foreign demand in 1876, "In observing the tendency of the trade, we find quite a demand is setting in from Europe for our 'sun-cured' and 'fancy brights,' besides the usual call for what good heavy shipping we have to offer. Germany is taking with reasonable freedom sun-cured lugs, and England a great deal of bright yellow leaf." This year marks the beginning of the bright export trade. Since that time Canada, Austria, England and France have all been giving annually larger orders for Virginia brights at prices varying from 6 to 15 cents per pound.

Changes in demand in the period of the nineties remain to be considered. We find that fashion as to plug tobacco has undergone a decided change. The golden wrapper which formed almost 12 to 15 per cent. of the cost of the plug had proved in many instances deceptive. As a fifty-cent wrapper might contain within it a four- or five-cent quality of filler, it was misleading, making a poor piece of tobacco appear as well as a good piece. Lacking also good chewing qualities, it was frequently pulled off the plug and thrown away. The bright plug ceased to be much in demand. A rich mahogany wrapper of fine texture and good chewing qualities was called for, and the gold tobacco was allowed to pile up on the shelves of the retail merchants for want of buyers. As the mahogany wrappers were more abundant than the yellow wrappers, the leading factories adopted them for their chief brands, and by means of extensive advertising they greatly assisted in determining the new character of the trade. To compete with these

large factories, having popular and well established brands, it was necessary for smaller ones to employ the same wrappers on their goods; and soon all the manufacturers ceased to offer fabulous prices for the white wrappers, but relegated them to a place with cutters and granulated stock, which commanded lower prices.

The demand for cigarette tobacoo also experienced a change, caused by the formation of the American Tobacco Company. The company exercised two effects upon the bright tobacco market, one of which was creditable, the other was not. In the company's favor it can be said that by its large system of extensive advertisement throughout the United States and in foreign countries, which it has been able to carry out by reason of its enormous capital and profits, it built up a market for cigarettes that could not possibly have been gained by the individual competitive factories, working independently of each other. This ever widening market sustained, in spite of great over-production, fair prices all the while on the particular cutter grades. To the company's discredit it can be said that it materially lowered the price to the producer on all grades of bright tobacco.

Reviewing the export trade in the nineties, we note two new changes; first, the annual exportations were steadily decreasing from year to year; and secondly, bright tobacco was forming a much larger proportion of these exports. More "brights" were going abroad now because they had fallen considerably in value, the foreign demand varying inversely as the price. The decrease in total exports was due to two causes: first, the cheapness of certain grades of tobacco in the West as compared with prices in Virginia; second, the contract system of buying employed by the "regie" monopolies.

The first cause explains why Germany imported only one-third as much of Virginia tobacco at this time as it had done ten years before, and since Bremen is the chief open market of the Continent, the decrease in Germany's

imports represented fairly the decrease in the imports of Europe.

France, Italy, Austria and Spain have "regie" monopolies; that is to say, their tobacco industry is under the supervision and control of the government, and their leaf dealers, manufacturers, retailers, etc., are appointees of the government. All these countries, except Austria,[1] have adopted the plan of giving their orders for Virginia tobacco by type samples to those who promise to supply them at the lowest figures. This system has injured Virginia's trade in two ways; first, orders have been taken at such low figures that the buyers could not get Virginia tobacco at these prices and they have been forced to go west to fill their orders; second, the low bids have forced the buyers to fill their orders with the meanest grades of western tobacco, and this vile stuff has been shipped back to the different governments under the name of Virginia tobacco, and has thus greatly injured its reputation abroad.[2]

The following statistics of Virginia's foreign shipments

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[1] Austria, however, though having a government monopoly in tobacco, is not subject to the same censure, for it has pursued quite a different plan in purchasing its supplies. This country buys its tobacco through its consul, who resides in Virginia, and who can see that it is to the interest of Austria, as well as Virginia, to maintain reasonable prices. The long, broad, dark wrappers, suitable for making the Austrian cigars, and grown best in certain counties of Virginia, are always in strong demand at from 11 to 16 cents.

[2] The contract system employed in these foreign countries has been introduced since the war, and of late years it has materially lowered the prices offered by them for tobacco, and has, consequently, greatly decreased the amount of Virginia's exports. In the sixties France paid as high as 12 and 15 cents for her tobacco, and imported from Virginia annually about 8000 hogsheads; Italy paid 12 to 16 cents, and imported 4000 hogsheads; Spain paid 8 to 10 cents, and imported 2500 hogsheads. At present France pays 5 and 6 cents, and imports 1200 hogsheads; Italy pays from 8 to 12 cents, and imports about 1500 hogsheads. Spain gives such low prices, 3 and 4 cents, that it can practically get no Virginia tobacco whatever; it imports about 12,000 to 20,000 hogsheads of the commonest western tobacco to be found.

show how much her exports have decreased in the past ten years.[1]

Year.	Hhds. Tobacco.	Hhds. Stems.
1884–85	23,070	2,802
1885–86	28,700	3,218
1886–87	21,376	2,812
1887–88	22,063	2,647
1888–89	19,230	1,369
1889–90	21,417	1,731
1890–91	19,829	1,465
1891–92	19,705	1,631
1892–93	14,676	1,375
1893–94	15,212	1,116

[1] New York Custom House.

CHAPTER IV.

The Planter.

The most important and interesting facts in connection with the planter may be brought out in answering the following five enquiries:

1. What has he considered burdens upon agriculture in general, and upon tobacco culture in particular?
2. What has he done to remove these burdens?
3. What has been his explanation of the general decline in prices?
4. Does he study the wants of his market?
5. To what extent has the price of tobacco made him restrict acreage and diversify crops?

Section 1.—What has the planter considered burdens upon agriculture in general, and upon tobacco culture in particular?

A review of the agricultural papers of the state shows that the farmers as a class have considered the following things burdensome: 1. Unequal and unnecessary taxation. 2. Contracted currency. 3. Discriminating charges of railroads. 4. Trusts. 5. Trade exactions. 6. An over-supply of middlemen. They maintain that unequal taxation has arisen, first, from high protective tariffs, which have favored the manufacturing industries of the country and made abnormally high prices for manufactured goods, but left agricultural products unprotected. Secondly, they maintain that the farmer's property, being largely in land, farm stock and implements, is incapable of concealment, unlike money, bonds, stocks, and that therefore all his possessions are listed for taxation, while much more productive capital in other forms is totally exempt. The large accumulation of money in the United States Treasury in the year 1889

was considered sufficient proof that taxation had been unnecessarily heavy. The government was declared guilty of cheapening the price of products of the field by contracting the currency, taking it out of the pockets of the people and out of circulation without necessity. This contraction of currency was believed by many farmers to be the underlying cause of their troubles. Give them free coinage of silver, more money, they argued, and their grievances would end. Their faith in the white metal was as unbounded as many of their arguments in support of its free coinage were groundless and unsound. The majority of Virginia farmers are "silverites," but contrary to the general impression on this subject, there are many among them who favor only the yellow metal. The chief agricultural paper of the state [1] has always firmly held to the single gold standard, and its able support of that side of the question has made some monometallists among the planters.

The agricultural papers are full of accounts of discriminating rates and exorbitant charges by railroads. By means of the table of transportation rates in the report of the United States Agricultural Department for June, 1890, an interesting comparison was made between the rates in Virginia and those of other states. Rates on agricultural implements to New York City from Erie were 18 cts. per cwt.; from Cleveland, 21½ cts.; from Detroit, 22½ cts.; from Cincinnati, 26 cts.; from Chicago, 30 cts.; and the rates on carloads of sheep from all these places to New York were about 2 cts. lower still per cwt. In Virginia the rates of transportation from Richmond to South Hill, a distance of about 90 miles on the Atlantic & Danville R. R., were on groceries 17 cts. per cwt. and on first-class goods 55 cts.; on sheep in crates they were $1.75 per cwt. gross.

The rates have been made to favor long hauls as against short ones, or in other words, the manufacturer and the dealer have been favored in being allowed cut rates, while the producers have been compelled to pay full charges.

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[1] "Southern Planter," of Richmond, Va.

Nothing need be said of trusts. The intense hatred of the farmers for combinations of all sorts is well known. They believe that " combines " have no redeeming features whatever, and curiously many have begun to regard industrial organizations of all kinds among town people as partaking more or less of the nature of trusts. All organizations of merchants, boards of trade, bankers' associations and incorporated stock companies are considered by many farmers to be trusts whose purpose is to oppress. According to this reasoning they should apply the same opprobrious name to their own clubs and agricultural societies.

By trade exactions the farmers mean excessive charges by warehousemen for small services rendered. They claim that the warehousemen act as factors and not as commission merchants, that they speculate on the farmer's produce, buying it themselves and selling at a profit rather than seeking to get the highest price for the farmer.

The middlemen, according to the majority of the farmers, are the factors, brokers, commission merchants, canvassers, dealers, drummers, peddlers, pin-hookers, speculators, sharpers, traders, etc. The farmers claim that these men are more numerous than necessary; that the same amount of work could be done by a smaller number of men, and that they have the unnecessary ones to support.

Of the six evils to agriculture named above, four are considered to rest with peculiar weight upon tobacco culture, viz., taxation, trusts, trade exactions and middlemen. The farmers say that the tax has been a double one on them, that they have paid it first in the fall of price of the leaf and again in purchasing the manufactured product. The tax lowered the price of leaf in three ways: first, it limited consumption; second, it only allowed licensed dealers to purchase tobacco; third, when the tax was very heavy it placed the manufacturer's main chance for profit in the reduction of the price of leaf. Since the other costs, of labor, material and tax were all fixed in amount, a wider sale of the manufactured product could only be had by reducing the price, which could only come through a reduc-

tion in price of the leaf, since this was the only variable element in the composite price for the finished product.

The combination that most actively arouses the antagonism of the planter is the American Tobacco Company. One has but to mention the word combine or monopoly to a farmer to bring forth burning maledictions against this company. He believes that this one organization has done more to lower prices and to make tobacco-growing unprofitable than all other causes combined. But another form of union to which he points as having greatly lessened competition in the medium-sized markets is that of concerted action on the part of the tobacconists and bankers, a mutual understanding among them to guard well each other's interests. It is said, and it is true, that most of the large tobacco dealers, or factory owners, in a town are large stockholders in the banks. It is claimed that if these men expect to need a large amount of money to make special purchases they instruct the men in the banks to let no small amounts go out until they are first accommodated. Many of the buyers on these markets are men of small means, speculators, who borrow small sums from the banks for a few days, enter the market and make things lively trying to turn over their money. Since these small buyers cannot get accommodation at the bank, they are unable to make purchases—the business being conducted on a cash basis—and therefore the number of buyers in these small markets is lessened, prices fall, and the market awaits the pleasure of the moneyed stockholders.

As to the trade exactions complained of, the warehouse charges, they assert that these have been much higher under the system of private inspection and private warehouses than they were just after the war under the system of state inspection and public warehouses. Most of the tobacco was then sold in hogsheads, under the supervision of the state, samplers being appointed by the Governor. Inspection was necessary to insure the buyer, as tobacco was often nested, common tobacco being hid inside the good, and sometimes trash, such as stones or sticks, put inside of

this. The bulk of Virginia's tobacco was exported at that time, and without inspection its reputation could not have been maintained abroad. But when bright tobacco began to flood the markets, which was sold for the most part on the warehouse floor, not packed in hogsheads, but scattered in small piles, where the buyer could examine easily for himself the quality of the tobacco, inspection was no longer necessary. Accordingly, in the year 1874 a change was made in the laws which allowed all loose tobacco to be sold without governmental inspection. Three years later state inspection was abolished altogether, and the trade was given the right to elect its own inspectors and to make its own charges. The farmers claim that these charges are higher than formerly.[1]

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[1] The following comparison of charges under the old and new system is taken from the "Progressive Farmer":

"Let us contrast the sales of 10 hogsheads of tobacco sold under the *old regime* and under prices *now* (1889) charged by the warehousemen generally.

OLD CHARGES.

Inspection and warehouse charges on 10 hhds. tobacco at $1.45 per hhd.	$ 14.50
Commission charge selling 10 hhds. at $1.00 each	10.00
Full charge paid by planter	$ 24.50
Paid to the State 30 cts. per hhd. on 10 hhds	3.00
Leaving to inspectors	$ 21.50

PRESENT CHARGES.

Weighing 15,000 pounds at 10 cents per 100 pounds	$ 15.00
Auction fees, say on 50 piles at 25 cents each	12.50
Commission on 15,000 pounds sold at 10 cents per pound —$15.00 or 2½ per cent	37.50
	$ 65.00

Showing that warehousemen now charge *over three times* as much as was formerly paid inspectors for like service when sold in hhds.

LOOSE TOBACCO.

Old charges on fifteen thousand pounds	$ 24.00
Present warehouse charges	65.00"

Section 2.—What has the planter done to remove his burdens?

For the most part he has talked and done nothing. He has envied the well-to-do and abused those in authority whom he considered responsible for the oppressive laws. At times, however, he has attempted more and with varying degrees of success. He has believed that unjust laws were his burdens, that relief from them could come only through the legislature, and therefore he has directed his efforts towards influencing the actions of this body. The earliest attempt of the farmers within our period of study to shape legislation was in the year 1866, when they were suffering so much for the want of capital and labor. In November of that year there assembled in Richmond a body of agriculturalists called "The Virginia State Agricultural Society of Virginia Farmers." The object of the meeting was to advise as to the best methods to pursue in agriculture under the new and harsh conditions which the war had imposed; to discuss the relative merits of the slave system and hired labor; and finally to devise some means of getting more labor and money with which to cultivate their lands. Committees were appointed who returned full reports to the convention for its consideration and endorsement. The one on usury laws submitted a resolution which advised the legislature to repeal the existing laws, which only allowed a maximum rate of 6 per cent. interest, and to enact a law which, while leaving 6 per cent. as the legal rate, should also declare that contracts for any higher rate whatever should be valid, provided they had been made in writing. A bill to this effect was drafted by the convention and presented to the legislature. It failed of passage at the time, but in 1870 a similar bill became a law, showing that the farmers' demand had not been altogether unheeded. The legal maximum rate of interest was raised from 6 to 12 per cent. The resolution of the Labor Committee, sent to the legislature, advised that body to encourage immigration, and to that end to make necessary appropriations. This was not

without effect, for later a Board of Immigration was formed, under whose supervision were issued many pamphlets and handbooks presenting the resources and natural advantages of Virginia and aiding greatly in bringing people and money into the state.

In the year 1874, when the trade of Richmond endeavored to abolish the state inspection laws, the farmers brought very strong and effective influence to bear upon the legislature. The planters desired the retention of state inspection under sworn bonded inspectors, appointed by the Governor, and charges regulated by law. They feared to surrender to the trade the appointment of private inspectors under rules, regulations and charges of the so-called tobacco exchanges, which they believed were always ready and anxious to take undue advantage. To meet the organized trade they decided to organize themselves; and fifteen counties in the heart of the tobacco-growing district of the state began holding public meetings, in which the action of the Richmond trade was denounced as a deliberate attempt to rob the planter of his natural rights, and resolution after resolution was drafted petitioning the lawmakers in Richmond to retain at all hazards the old inspection laws. A few able representatives were persuaded to take the planter's side in the contest and the result was a victory for the farmers. State inspection was then retained, although later, in the legislature of 1877-1878, these laws were changed. As to the tobacco tax, the legislature has always been on the side of the farmers, trying constantly to persuade congress to reduce it further. The planter has fought the tax from the first, and has forced reduction as far as he could by denouncing the iniquitous exaction through the papers and by returning to the legislature those members who worked hardest for the reduction. To rid themselves of high tariffs they have regularly voted the Democratic ticket; to get relief from trade exactions, railroad discriminations and middlemen they have worked through the organization of the Farmers' Alliance.

This order first entered the state in the year 1887. By the year 1891 it had formed Alliances in 96 different counties, had started 20 County Alliance stores, had established five district exchanges, each with a capital stock of $2,000, and had gained the large membership of 35,000. Its purpose at first seemed a strictly business one, and as a business organization it prospered and proved very helpful to its members. Later its whole purpose seemed political, and as a political body it has not been successful. With business ends in view it had endeavored to establish closer relations between the agriculturists on the one hand and the merchants and manufacturers on the other, to give the farmers the benefit of buying goods in large quantities and to save them the profits of many unnecessary middlemen. Farm supplies and various manufactured goods could be bought in the Alliance stores at factory prices plus the freight, which generally saved them 25 per cent. on their purchases. The district exchanges in the larger cities saved them from 30 to 40 per cent. on farm implements, fertilizers, salt, etc. The Alliance fertilizer factory near Richmond, capitalized at $5,000, reduced the price on most brands of fertilizer sold in Virginia at least 25 per cent.

To save themselves from heavy warehouse charges, the Alliance built several warehouses and undertook to run them at lower rates than were generally charged. They opened with fair promise, but soon found that the patronage was not sufficient to justify the reduction made in rates and were forced to raise them or close. This shows that the evil of excessive warehouse charges was imaginary and not real; competition having made the charges as low as would support the business.

In the year 1891 the Farmers' Alliance went into politics and gained a large representation in the General Assembly. The Alliance representation in the Senate at this time was one-fourth of its membership, and in the House of Delegates one-half. The Alliance men in the General Assembly out-

numbered either of the old parties, Democrat as well as Republican, and in the lower house the party was as strong as the Democrats and Republicans combined. The farmers held at last the long-coveted power of making laws, and they determined to enact a number sufficient to save themselves from all present embarrassments and to provide against all future contingencies. Their railroad bill was an interesting one, though drastic, far-reaching and impracticable, as were also some of the other measures proposed against trusts and national banks. These bills embraced such wide and varied interests that no body of sensible men could be persuaded to pass them until their full effects had been well weighed and duly considered. Free discussion of the bills brought out their imperfections and made many of the most loyal Alliance members vote against them. The forces divided, the minority gained the balance of power and none of their proposed bills became laws. The few really practical bills introduced, those dealing with fertilizers, seeds, cattle diseases, etc., which would have proved of material benefit to the farmer, received only the smallest share of attention. The farmers would not consider bills so small in their requirements; they must needs make great laws or none. With the power in their own hands they were unable to use it to advantage.

Section 3.—The explanation given by the planters for general decline in prices.

All planters agree that there has been a gradual fall in the price of tobacco since the war, but they differ as to the amount of the fall and as to its causes. A few hold that tobacco has maintained a higher price than any other farm product; that the prices of all products have declined by reason of the steadily contracting volume of the currency, but that the price on tobacco has been lowered less than that of any other product by reason of the ever increasing demand for it. They claim, too, that the farmers do not bring as good a quality of tobacco to the markets now as formerly; that present prices of inferior

have been compared with past prices of good tobacco, and that in this way prices have seemed to decline. They admit that prices fluctuate a good deal, that in particular years the general prices have been low, and that of late years the prices on certain grades have been lower than ever before, but they attribute the fall in prices to over-production, to bad seasons, bad management, and not to burdensome laws, combines, trade exactions, etc., which they consider only minor causes. Taking for example the year 1878, when prices on all grades were exceedingly low, the average price in the United States being 5 cents, and in Virginia only 4.8 cents; they calculate the stocks on hand in the principal markets of the world, viz., London, Liverpool, Bremen, New Orleans, Baltimore and New York, and find that the increase in stocks in the year 1878 over that of 1875 was 70,115 hogsheads, and that all this was of very inferior quality. Reviewing next the report of the Agricultural Department, they see that the four years immediately preceding 1878 were those of enormous increase in production all over the United States, and that since the year 1874, when hardly half a crop was grown on account of extremely bad seasons, and when prices were abnormally high by reason of the small supply on hand, the farmers had been planting more and more every year until they finally glutted the market in 1877. As conclusive proof that over-production was the main cause of low prices at this time, and not, as some claimed, the agitation of the tax, or the general stagnation in business due to the panic of '73, they give the figures of production in those years, which certainly strengthen their statements.

For United States.		Price.
1874	178,355,000 lbs.	13.1
1875	379,347,000 "	8.
1876	381,002,000 "	7.4
1877	581,500,000 "	5. (?)

Ten years later, in 1886 and 1887, prices were again very low, and especially on all medium grades of both dark and bright tobacco. One explanation given by them was that the farmer had become daft in regard to curing all his tobacco yellow, that he had attempted to flue-cure for "brights" when his tobacco had not yellowed well on the hill; another was that the farmer had used land unsuited to the type and had without reason followed the general maxim of "the lower the price, the larger the crop."

These explanations of prices are accepted by a few well-to-do, progressive farmers who own large, well-kept estates and who have money enough for their own farms and also for small investments in the towns and cities. They are not at all satisfactory, however, to the great majority of farmers, who either possess only a few acres, or else are tenants, raising crops on shares. Having worked hard to raise the finest tobacco possible and having received every year less and less money for the same quality, they claim, first, that tobacco has suffered a reduction in price not only common to all farm products, but one peculiar to itself, and secondly, that this reduction is due not to the farmer or any of his methods, but to causes which at present are entirely beyond his control.

To prove the first point they give accounts of actual sales in different years. A farmer from Louisa County, who is a skilled hand in tobacco culture, brought to the Richmond market in 1877 a crop of sun-cured tobacco raised on three acres of land, for which he received for his best grades from 25 to 43 cents per pound and for his lowest grades from 8 to 15 cents per pound. In 1895 he carried to the same market a crop of the same size, same quality, raised by the same hands and on the same soil, the land in the meantime greatly improved. Tobacco was low, but by reason of the good quality of this lot he expected to realize on his highest grade from 10 to 15 cents per pound and for the lowest from 5 to 8 cents. What he did receive was for the highest from 7 to 9 cents, and for

his lowest from 4 to 6 cents. Another expert farmer from the same county averaged in 1888 12½ cents per pound all around, and in 1892 for the same grades only 9 cents average. Bright wrappers some years after the war sold from 50 to 70 cents, and some brought as much as $1.50 to $2 per pound. They now range from 12 to 40 cents and seldom go so high as 50 or 60 cents. Cutters brought in 1885 from 15 to 30 cents; they now bring only 8 to 22 cents. The quotations of the bright tobacco market of Danville are indicative of the fall in prices. For the three years of 1883, '84 and '85 the average price on all grades was 13.3 cents, while for 1892, '93 and '94 it was only 7.8 cents. Such facts as these afford proof enough to the majority of farmers that prices of tobacco have suffered an enormous decline in the last few years. Their reasons for it would be the formation of the American Tobacco Company, the small combinations among agents buying for different factories, and the fact that the large manufacturers own much stock in the banks. They would admit, too, that over-production had in some degree affected prices, but they have no patience with the theory which lays all blame at the farmer's door.

Section 4.—Does the planter study the wants of his market?

The average planter makes very little effort to learn the demands of his market. As one knows him better, he becomes more and more convinced of this lamentable fact. The farmer rarely reads a newspaper, seldom goes ten miles from home, and consequently has to depend almost entirely on hearsay for a knowledge of his market. He is so constantly employed with his farm duties that he can spare no time in finding whether or not he is making a salable product. He sees his market once a year, the day on which he sells his crop, and judges of its future requirements by its present wants. He never visits other markets nor reads reports of them, and consequently his idea of the actual demands of the general tobacco market

is exceedingly vague. If he is willing to adapt his production to varying demands, his imperfect knowledge will frequently lead him to make improper changes. When he is not guided by custom he is misled by ignorance. The tobacco journals generally note any decided changes occurring in the markets' wants and advise wisely as to the best grades to raise, but the farmers as a class do not read the journals. A small minority of the planters in the state, however, act more rationally. Some of these are Virginia farmers bred and born, but a number of them are immigrants from the north and west who have recently moved to the state. By farming on business principles, studying first their markets and then furnishing them with suitable supplies, they have succeeded where others have failed.

An able lawyer of Amelia Court House gives this case of successful farming which has come under his own observation: Ten years ago, he said, the land in Amelia County, five miles south of Amelia Court House, was delinquent for taxes. The farmers cultivating it were getting poorer and poorer every year. Some Pennsylvania farmers moved in, bought the land, and after a little improvement and manuring began to grow a particular grade of export tobacco called the Austrian Wrapper, used in Austria for cigars. This grade brings from 12 to 15 cents per pound. To-day these farmers have paid for their lands, put them in fine condition, built good houses, and their prospects are fine for becoming rich farmers. None of their lands can be bought or rented now for reasonable sums since they have proved so profitable in the hands of their owners. Another planter of the same county who specialized on a heavy dark export grade, employing the intensive system of cultivation, reported as follows: "I planted 17 acres in tobacco on my farm in the year 1892, on which I used about 6½ tons of fertilizer. I raised on these 17 acres and sold in the Richmond market about 25,750 pounds for $3,006.42, less freight and commission. In the year 1890 I raised on about 17½ acres upwards of 27,000 pounds

and sold it for $2,400." A Halifax County planter, who had specialized on a grade of bright tobacco, writes that he netted in 1895 $6,500 on 22 acres, which is an average of $282.46 to the acre.

Such have been the profits for a few planters who have specialized in their production and succeeded in meeting profitably the market's demands. The Commissioner of Agriculture states that in those counties where there is most specialization in production and diversification of crops (Piedmont, Tidewater and Valley), the farmers have a large number of clubs, are more regular in their attendance on the Farmers' Institutes, and take more agricultural papers. The editor of the "Southern Planter" of Richmond states that immigrant farmers as a rule take one or two agricultural papers. This may explain in a measure their success. This taste or desire for reading is wanting in the Virginia farmer, and must be cultivated if he is to compete successfully with those who farm on scientific principles.

Section 5.—To what extent have the low prices of tobacco made farmers restrict acreage and diversify crops?

Virginia planters are not raising at present as much tobacco as they did 8 or 10 years ago. The low price of the staple product has compelled a diversification of crops in many localities with intensified farming for the old crops, and with extensive farming for pasturage, stock raising, etc. In the Piedmont counties fruits have been substituted for tobacco; in parts of Middle Virginia, grain, hay and stocks; in the Tidewater counties, trucks and vegetables. In the report of the Commissioner of Agriculture for 1888 there were only 23 counties which reported tobacco as the main money crop, while there were 53 which reported grain; 11, trucks; 4, fruits, and 4, peanuts. Ten years before this at least 30 would have reported tobacco as their chief dependence for money. Several mountain counties in the western part of the state, Giles, Craig and Greene, which six or seven years ago were large producers of tobacco, have of recent years grown none whatever.

The land here being very hilly and steep, was washed into gullies soon after clearing, and as the fertilizer went with the loam of the soil to the low lands at every freshet, the soil was soon rendered unfit for tobacco and the crop had to be abandoned. In the year 1888, out of 18 counties reporting, 16 declared an increase in the raising of horses, 9 in cattle, 13 in poultry for market, 12 in garden vegetables. The restriction of acreage in the last four years for 16 main tobacco counties is represented in the table given below.[1]

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[1] Per cent. of acreage planted in tobacco in 16 tobacco counties of Virginia for the four years, 1891-1894:

Counties.	1894.	1893.	1892.	1891.
Louisa	75	87	...	100
Caroline	62	100	100	...
Fluvanna	78	95	100	100
Franklin	65	76	75	85
Floyd	67	89	100	96
Appomattox	87	100	...	100
Cumberland	67	90	...	100
Bedford	62	99	110	105
Botetourt	..	80	...	100
Campbell	70	90	...	105
Charlotte	78	90	100	88
Lunenburg	88	90	90	90
Mecklenburg	70	97	100	110
Pittsylvania	70	90	80	83
Henry	65	81	100	100
Halifax	60	100	90	96

From reports of Commissioner of Agriculture in Virginia.

PART II.

MANUFACTURE.

CHAPTER V.

The Relative Rank of Virginia among the Tobacco States.

"To the state of Virginia the commercial world is indebted for the rise and progress of the tobacco trade, and to Virginia manufacturers the trade owes whatever of good there is to be found in the manifold improvements that have been made in the form and quality of the various brands embraced under the general name of plug tobacco." Such was the tribute paid to Virginia in the early sixties by J. L. Bishop in his "History of American Manufactures." The state manufactured at this time 75 per cent. of the total product made in the United States. Until the last ten years she led all the states in the amount of plug tobacco made, and prior to 1881 she stood first in the total amount of all manufactured tobacco products; a few years after this she was overtaken and outstripped by Missouri. In the year 1880 Virginia manufactured more tobacco than the three states of New York, New Jersey and Pennsylvania together, or the four states of Kentucky, Missouri, Arkansas and Tennessee, or the eight states of Indiana, Illinois, Ohio, Michigan, Wisconsin, Iowa, Kansas and Nebraska. Virginia had the same precedence in the matter of revenue paid. The state manufactured more than twice as much as both Maryland and North Carolina and paid more than twice the revenue of these two states. Virginia's contribution to the total revenue of the United States from all sources was in 1880 13.8 per cent., and to the revenue from plug, smoking and fine-cut it was $24\frac{1}{3}$

per cent.; in 1893 her contributions were only 8 per cent. and $11\frac{2}{5}$ per cent. respectively. In the manufacture of cigarettes the state has always maintained a prominent position. In 1886 she ranked second to New York, the leading state. At present she holds the third place, North Carolina having surpassed her. The state has played a comparatively inconspicuous part in the cigar industry. In his Census Report of 1880, J. R. Dodge does not even reckon Virginia in his list of cigar states. The table below, prepared from the Census and Internal Revenue Reports, gives the comparative rank of the tobacco states for the years 1880 and 1890. The amount of raw material used and the tobacco consumed in the manufacture have been the criterion for determining relative superiority.

	In all products.		In plug and fine-cut, snuff and smoking.		In cigarettes.		In cigars.	
	1880.	1890.	1880.	1890.	1880.	1890.	1880.	1890.
1	Va.	Mo.	Va.	Mo.	....	N. Y.	N. Y.	Pa.
2	N. Y.	Va.	N. J.	Va.	....	N. C.	Pa.	N. Y.
3	N. J.	N. Y.	Mo.	N. J.	....	Va.	O.	O.
4	Mo.	N. J.	N. Y.	N. C.	....	La.	Ill.	Ill.
5	O.	N. C.	N. C.	Ky.	....	Md.	Cal.	Fla.
6	N. C.	O.	O.	O.	....	Cal.	Md.	Cal.
7	Pa.	Ky.	Ill.	N. Y.	....	O.	Mich.	Mich.
8	Ill.	Pa.	Ky.	Mich.	....	N. J.	Mass.	Mass.
9	Ky.	Md.	Md.	Md.	....	Pa.	Wis.	Md.
10	Mich.	Mich.	Mich.	Ill.	....	Fla.	Mo.	Wis.
11	Md.	Ill.	Wis.	Wis.	....	....	N. J.	Va.
12	Wis.	Wis.	Pa.	Pa.	....	Ill.	Ind.	N. J.
13	Cal.	La.	La.	W. Va.	....	Tex.	Fla.	Mont.
14	La.	Mass.	Del.	Tenn.	....	W. Va.	La.	Mo.
15	Del.	W. Va.	Mass.	La.	....	Mich.	Ky.	Ind.

CHAPTER VI.

The History of Tobacco Manufacture.

The periods of time taken for the study of Manufacture are identical with those for Production. The first period (1860-1871) was marked by a war and heavy taxation; the second (1871-1885) was marked by the monetary panic of 1873, the lowering of the tax, the influx of northern and foreign capital, and the rise of the cigarette and rehandling establishments; the third (1885-1894) was marked by reckless competition, the formation of the American Tobacco Company, and the panic of 1893.

Section 1.—1860-1871.

Prior to the war the manufacture of tobacco was distributed throughout the whole tobacco-producing section of the state. Not only was a crude form of it found in the homes of the planters, but the tobacco factories were scattered throughout the country districts and were not confined alone to the cities and towns as at present. The towns were small, few railroads were built, the hands were hired for the year instead of by the day, the regular method for disposing of goods was through consignment to commission merchants, the general movement of the trade was slow, and under such conditions a country factory enjoyed almost the same advantages as a city factory, and its location would be determined as much by the nature of leaf grown in a particular section as by any other consideration. In 1860 there were 252 tobacco factories in Virginia. Of these, 109, as stated by the oldest manufacturers, were in Richmond, Petersburg, Lynchburg and Danville; the remaining 143 being distributed then throughout the country districts and among the small towns. Of the thirty gen-

erally recognized tobacco counties, there were nineteen which could claim manufactories.

But six or seven years after the war the country factories had all disappeared. In 1870 there were only 131 factories in the state, and 37 of these made "cigars and tobacco." Twelve counties which had, in 1860, 88 factories had only 17 in 1870, and seven counties which had 21 factories in the former year had none in the latter. Many city factories had also disappeared. Before the war Richmond had 50 factories, Lynchburg 35 and Danville 10; but after it Richmond had only 38, Lynchburg 16 and Danville 6.

There were two causes for the disappearance of the factories—the civil war and the heavy taxes. The oppressive effects of the latter were felt acutely because of the heavy losses sustained in the former. The war had left the manufacturers with their empty factories and rusted machinery, but with no labor, no money and with little credit. A few were fortunate enough to save during the war several hundred pounds of manufactured tobacco and were able to raise with this the necessary cash for paying taxes and continuing business, but the majority had only their knowledge and skill in the art of manufacture as capital to start with after the war, and had to depend entirely on the advances of their old commission merchants for taxes and running expenses. The tax originated in the act of July 1st, 1862, and went into effect the following September. At first it was deemed necessary for procuring revenue for carrying on the military operations of the government, and it was afterwards continued to provide for the payment of the debt and for pensions. The rate of taxation was not uniform. On different grades of manufactured tobacco it varied from 2 to 40 cts. per pound; on snuff from 20 to 40 cts. per pound; on cigars from $1.50 to $40.00 per thousand; on cigarettes from 40 cts. to $3.00 per thousand. Under some of the early laws the tax was made partly specific and partly *ad valorem*, with the view of bringing the quality and price of the goods in as elements determining the

amount of the tax. This method was found to be impracticable, and later the stamp system was introduced, which was soon followed by the system of uniform taxation. The uniform tax has proved most satisfactory both to the manufacturer and to the internal revenue officers. It is easily complied with and easily collected. The uniform system was adopted on June 6th, 1872, and no other changes except those of repeated reductions have been made in the taxes since that time.

The effects of the different taxes have been numerous and interesting; they were not fully realized, however, for some years after they were first imposed, since it was as late as 1872 before they were thoroughly collected. Previous to this many factories had been evading the tax, and actually living on it as a profit, by imitating the inspector's stencil marks or by using repeatedly the same stamps on different packages. The country factories, and notably those in the mountain districts remote from the railroads, having a local trade supplied by wagons, paid little regard to the revenue laws, but like moonshiners making apple brandy, they believed that one stamp on a box or barrel could be made to answer all revenue requirements until it was completely worn out. Manufacturers in certain districts off the officer's beat were threatened with a raid if the proprietor did not at least make a show of buying stamps once a quarter to the extent of ten dollars' worth, to keep up an excuse for having internal revenue officers. The city manufacturers also found this blockading business a profitable one. All but four in Danville engaged in it, and one is reported as having sold tobacco in Baltimore at 40 cts. per pound when this figure barely covered the tax itself. This evasion of course seriously interfered with the business of honest manufacturers and its practice soon became very disreputable. By 1873 blockading had been practically abandoned altogether. But the form of the tax, being a graded one, furnished for some years another opportunity to cheat the Government, and manufacturers, as a class, availed themselves of it.

Before 1872 the tax on manufactured tobacco was uneven, there being two rates, 16 and 32 cts. per pound. It was the Government's intention that 32 cts. should be generally paid, the law stating that 16 cts. could only be paid on "smoking tobacco, made exclusively of stems, or of leaf with all the stems in it, and so sold; the leaf not having been previously stripped, butted, or rolled, and from which no part of the stems had been separated by sifting, stripping, or dressing, or in any other manner, either before, during, or after the process of manufacture." As this made the rate of the tax depend entirely on the process of manufacture it opened a wide door for fraud. The manufacturer would claim to cut his highest priced smoking tobacco, in the words of the law, "with all the stems in," and therefore refuse to pay more than 16 cts. to the pound. He also claimed to have the right to manufacture, cut or granulate his tobacco, the raw leaf even having been previously submitted to a process of sweetening, and, if the final product contained all or more than all of the stems natural to the leaf, to be entitled to sell it under the 16-cts. tax. Moreover, as the law required all chewing tobacco to pay 32 cts. per pound, the lowest grades of plug and twist were made to pay a tax double the amount of the one which the highest priced grades of smoking tobacco paid, notwithstanding the fact that the latter sold at double the price of the former; and as long cut smoking tobacco, especially when first sweetened, could be used instead of fine-cut for chewing purposes, some chewing tobacco was made to pay only 16 cts., while the cheapest grades of plug were always required to pay 32 cts. The difficulty of a fair collection of the tax lay in the fact that the manufacturer claimed that he had no possible way of telling whether his tobacco was to be used for chewing or smoking purposes. The introduction of the uniform system of taxation obviated this difficulty, and in the year following its adoption (1873) the unprecedented quantity of 114,789,208 pounds of tobacco in its various forms was returned for taxation, being a

quantity in excess of the previous fiscal year of 19,579,889 pounds. The total revenue collections had decreased only $4\frac{1}{10}$ per cent., though there had been a reduction in the tax of $22\frac{1}{3}$ per cent.

Another unjust and discriminating effect of the tax was caused by the system of collection at the export warehouses. A law passed on July 20th, 1868, authorized the Commissioner of Internal Revenue to designate and establish at any port of entry in the United States warehouses for the storage of manufactured tobacco and snuff in bond, intended for exportation, while at the same time it authorized the collector in charge of exports to issue a permit for the withdrawal of such tobacco and snuff for consumption after the tax had been paid. There were established by this act 15 bonded warehouses: one in Boston, five in New York, four in Philadelphia, two in Baltimore, one in Richmond, one in New Orleans, and one in San Francisco. The provision in the law allowing the withdrawal of tobacco after the tax had been paid gave to the manufacturers selling in such cities the chance to use these export warehouses as storage rooms, and they began to place goods in bond which were in reality consigned to jobbers and were never intended for export. In 1871 less than half of the tobacco bonded was actually exported. From eight warehouses in Philadelphia, Baltimore, New Orleans, San Francisco and Portland (Oregon) only 437,495 pounds were exported, out of 9,437,257 pounds that were bonded. In 1870 only a little over two-fifths of that bonded was exported. The jobbers would wait until the market offered highest prices, pay the tax, withdraw the goods and sell them to their regular customers, receiving in this way about four or five months' credit and getting always the best prices that the market afforded. This advantage given by the Government to the jobbers in these seaport cities over those in other places caused much dissatisfaction. The demand was soon made by the merchants, as a class, that such warehouses should be established in all large cities or else they should be abolished altogether. The latter was done in 1872.

The many disturbances occasioned in the sensitive life of the industry by reason of the different agitations of the tax have been as numerous as the proposals and discussions of changes themselves, though the nature of these disturbances has always been the same. The regular effect on every occasion has been that the talk of lowering the tax has depressed manufacture for a time, and discussions as to raising it have always temporarily stimulated the industry.

But in addition to these general effects of the taxes felt by all manufacturers, certain effects were realized by those of Virginia as by those of no other state. The tax being very heavy and requiring a large bond, forced out of business men of limited means and concentrated manufacturing interests in the hands of the few who were able to raise from their commission merchants sufficient funds to meet the requirements. This favored the moneyed men and the moneyed states, and coming at a time when Virginia was financially depressed, resulted in effecting a virtual transfer from Virginia to other more wealthy states of a large part of her natural industry.

Section 2.—1871-1885.

By 1871 the manufacturers had recovered in a great measure from the losses sustained in the war. They had also become better used to the tax, had made some money, and had begun to enlarge their business and extend their trade. The next fourteen years were characterized by exceptional growth in all sorts of manufactures. There was only one factor in this period—the panic of 1873—which put any restraint upon the general development, and its evil effects were not sufficient to check for any considerable time the steady and rapid growth already begun.

The statistics of general manufactures for Virginia in the years 1870 and 1880 show well the remarkable growth in this whole period, and also the fact that there had been some little concentration in the business. There was a

development of factory life along the new railways in the small towns but an abandonment of manufactures in the country districts, the country factory being unable to compete with the city factory having railroad facilities.

Census Statistics of Manufactures for Virginia, 1870-1880.

Years.	Capital Invested.	Hands Employed.	Wages.	Value of Material.	Value of Product.	Number of Establishments.
1870	$18,455,400	26,974	$5,343,099	$23,832,384	$38,364,322	5,933
1880	26,968,990	40,184	7,425,261	32,883,933	51,780,992	5,710

By the year 1880 the manufactures in Virginia were almost exactly 100 per cent. greater than they were in 1860; the capital invested had been doubled, the number of laborers employed had been more than doubled, and the gross amount of wages paid had increased about 80 per cent.[1] If the same ratio of increase had been maintained in the smaller towns as in the cities, it is probable that the manufactures throughout the state in 1885 would have been little, if at all, short of 200 per cent. greater than they were in 1870. In certain leading branches of manufacture, and in particular in tobacco in all its forms of manipulation, the increase was enormous. In the year 1884 the following enterprises were undertaken: in Richmond a $75,000 cigarette factory; in Roanoke, a $15,000 tobacco factory, and in Danville, two aggregating $35,000. Since 1875 several tobacco establishments had grown up in Goodson, Abingdon, South Boston, Martinsville, Bedford City, Chatham, Chase City and like towns. Virginia had in 1870 131 factories, of which 94 were for "manufactured tobacco" and 37 made "tobacco and cigars"; in 1880 it had 199 factories, of

[1] "Virginia: Geographical and Political Summary." Maj. Jed. Hotchkiss.

which 143 were for "manufactured tobacco" and 56 for "tobacco, cigars and cigarettes." The statistics for several counties show the same development.[1]

With this general growth, we note also the rise of two new and distinct branches of the industry, viz., the reprizing business and cigarette manufacture. The first represented only a further division of labor, the second was an entirely new industry. The object of rehandling establishments was to prepare leaf tobacco for manufacturers and shippers by stemming it, sorting it into different classes and putting it in fine keeping order. The process of stemming, prizing and ordering did not change the quality of the leaf, although it could be made to give desirable color to certain grades, especially suited to foreign trade and sometimes demanded by the home factories for special brands. No account was taken of these establishments in the census of 1870, but, in 1880, 27 were given to the state, and in 1890 the number had increased to 101. The development of cigarette manufacture was discussed in the chapter on Production, as well as the causes of the extraordinary growth of manufactures in this period.

Section 3.—1885-1894.

The first half of this period is marked by the disappearance of many of the factories which had been built during the preceding one. The factories in the small towns could not compete with those in the cities; Virginia had only 93 factories for "manufactured tobacco" in 1890, whereas

[1] Table, from census reports of 1870-1880, giving number of factories for "manufactured tobacco" with annual product valued at over $500.00.

Counties.	1870.	1880.
Bedford	5	7
Halifax	0	3
Henry	4	14
Roanoke	0	6
Pittsylvania	8	29

she had 143 in 1880. All the small factories having been forced out of business by 1890, the latter half of this period is called the period of large factories, and it is characterized by "cut-throat" competition in the marketing of goods.

The competition has taken the form of special bribes, gifts and inducements from the manufacturers to the trade, which have burdened them with so much expense that their business hardly returns any margin of profit. In establishing a new brand, the manufacturer must first offer special inducements to the jobber to take hold of the goods, the freight must be paid and a certain amount of tobacco given him; then he must offer the retailer a step-ladder or a clock for every five caddies sold, and the consumer a pocket-knife or dinner-pail on presentation of a specified number of plug tags. More than this, he must employ the mail and distribute free samples of his goods all over the country and must send his agents to the foundries, mines and factories with valises full of tobacco to give to the laborers in order to create a demand for his new brands. The gifts and advertising require as much skill as the manufacturing business itself and more worry, and to conduct these departments successfully the proprietor would do well to ally himself with a furniture factory or chromo establishment. Indeed manufacturers have gone further. After offering numerous schemes with costly prizes to the jobbers and retailers, they have begun to bribe the salesmen of these parties, and to give the jobber's travelling agent, as well as the retailer's clerk, a special pro rata bonus on the goods sold, and thus have cheated these employers out of a part of their salesmen's time. The jobbers have seen the wrong done them by such action on the part of the manufacturers and have done their best to stop such unprincipled conduct. The papers make mention of Merchants' Associations all over the country framing resolutions denouncing this nefarious business.

But more than this, sharp competition has occasioned a

system of cutting prices among plug manufacturers which has resulted in almost ruining their business. The price of good plug tobacco averages from 30 to 75 cents per pound, but in the summer of 1893 it was being offered by a few leading factories at 13 cents and less. The tax was 6 cents, which left only 7 cents to pay for the leaf, manufacture, freight charges, etc.; the cost of raising a pound of leaf is 6 cents. If there was any profit to the manufacturer in this there could certainly be none to the planter. In the spring of 1894, 17-cent plug and less ruled the market, with gifts thrown in. And not only were prices cut to consumers, but the price for the jobbers was "jockeyed" with. The manufacturer published from time to time his card list prices and he was under contract to sell his brands at these prices to every merchant doing business for him, but by giving certain amounts of tobacco to some and not to others, by prepayment of freight or by extending credit, he discriminated among them. The jobbers have opposed these methods as unnecessary and unfair "tricks of trade."

The results of free competition here do not seem altogether satisfactory. The jobber and the retailer are dissatisfied, the consumer is cheated, the price of leaf is depressed, and the manufacturer is forced to use unjust and unbusiness-like methods to make a bare living. There seems to be an absolute necessity for having some organization or understanding to prevent ruinous competition and unfair methods. The question resolves itself into this: must there be a trust at fixed prices, or free competition and irregular prices? No matter what prices one manufacturer may establish at the factory, unrestricted competition will soon demoralize them, for when he would compel a profit others will insist on selling their goods below cost. Without some restriction or agreement it is impossible to establish and maintain prices, and when such an agreement is had it virtually constitutes a monopoly. The history of the American Tobacco Company will be of interest at this point.

This company was formed in 1890[1]; it was first the union of Allen & Ginter in Richmond, the Kinney Tobacco Company of New York, W. Duke Sons & Co. of Durham, N. C. and of New York City, Wm. S. Kimball & Co., Rochester, N. Y., Goodwin & Co. of N. Y., and soon embraced also Marburg Bros. and Gail & Ax of Baltimore. Some idea of its size, growth and power can be gained from one of its annual reports.[2] The enormous profits and the large advertising fund indicate that the purpose of the combination has not been simply to save costs in marketing goods but also to get full control of the entire cigarette industry. The organization has succeeded in accomplishing this, for it is said to control about 90 per cent. of all the cutters marketed and 95 per cent. of all the cigarettes sold. The company controls the cigarette trade by offering extraordinary inducements to the jobbers and retailers who promise to handle its own goods exclusively; it has controlled cigarette manufacture in a large measure by

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[1] The American Tobacco Company cannot legitimately be called a trust, though it passes for one in the tobacco terminology of all newspapers, for it owns outright the brands, trade-marks, good-will, property, etc., consisting of tobacco and manufacturing supplies, and its existence can only be terminated by such liquidations as would be necessary to the discontinuance of the business of any banking, insurance, or other corporation. Its charter was obtained from the New Jersey legislature, after it had been applied for in the Virginia legislature, given, and then repealed.

[2] The net earnings for the year 1893, after deducting all charges and expenses for management, etc., were $4,334,467.34, out of which the Company had declared four quarterly dividends of 2 per cent. each on the preferred stock, amounting to $956,800, leaving $3,377,-667.34 to be applied to its surplus account and the payment of dividends on its common stock. The surplus account, as shown December 31, 1892, was $4,107,895.31, which with this year's $3,377,-667.34, makes a total of $7,485,562.65, out of which there has been declared a 12 per cent. dividend on its common stock, amounting to $2,152,500, leaving a net surplus, December 31, 1893, of $5,333,062.65, being a net increase over that of December 31, 1892, of $1,225,167.34. The total assets of the Company were $37,168,253.13, the total liabilities $29,835,000.00, and the advertising fund was $477,969.44.

leases, for this country alone, of the most important and practical cigarette machines, among which are the Allison, the Bohl, the Bonsack and the Luddington.

The liveliest opposition in a competitive way that the company has ever encountered came from the National Cigarette and Tobacco Company of New York, incorporated in June of 1892 with a capital of $2,500,000. This company had much success with the Elliott machine, which proved the equal, if not the superior, of the Bonsack, the leading machine of the American Tobacco Company. The National Company soon cost the American Tobacco Company about $300,000 in advertising, and the competition was so sharp that the Bonsack Machine Company found it necessary to stop the Elliott machine or else consider its contract with the American Tobacco Company null and void.[1] The Bonsack Company at once sued the Elliott Machine Company for infringement of patent, and it gained in June 12, 1894, from Judge Lacombe of the United States Circuit Court for the Southern District of New York, the order that the National Company should suspend operations until the next court. The National gave bond, however, and continued to manufacture until another court was held, at which time the decision was reversed and the Elliott machine was set free. A popular belief exists that an open market for cigarette machines would be the solution of a successful competition with the American Tobacco Company.[2]

In addition to its enormous cigarette industry, the American Tobacco Company owns also a considerable share in

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[1] It is said that the Bonsack Machine Company receives something like $250,000 a year from the American Tobacco Company for furnishing protection from new machines.—" Southern Tobacconist and Manufacturer's Record."

[2] Since 1894 the Company has allowed its leases on all machines to expire, and at this time (1896) the Bonsack and other machines are in use in competitive factories, yet the Company still holds its own.

the plug manufacture[1] of the country, and in this branch of the trade it is claimed that much damage has been done to tobacco manufacturers by sacrificing tobacco in order to get a wider sale for its cigarettes. Many jobbers who once sold tobacco for several different factories handle now the American Tobacco Company's, because the company gives them particularly low prices and large inducements for handling its goods exclusively. The tobacco manufacturers have complained a great deal of this and they talk at present of forming a great combination, composed of the largest plug factories in the country, viz., the Brown Company, Liggett & Myers, the Drummond Company, and the Catlin Tobacco Company; the purpose of which shall be to fight the American Tobacco Company by manufacturing cigarettes and sacrificing these in order to sell plug tobacco. If this "Anti-trust Cigarette Factory," as it is termed, is organized, this with the National Tobacco and Cigarette Company should create for the American Tobacco Company a lively competition.[2]

The American Tobacco Company employs very exacting contracts with its agents and consignees in regard to the methods to be used in the conduct of its business. Its numerous and explicit rules have proven annoying to some jobbers, and have subjected the company to the criticism of being unnecessarily dictatorial; to others, however, the plan has been very acceptable and has met with entire approval. Southern jobbers, in whose business the sale of cigarettes forms only a small and unimportant part, dislike the method, while those in the large, prosperous cities, north, east, and west, who handle cigarettes in large quantities, favor it. The company claims that the plan is em-

[1] Since the company's organization it has purchased the National Tobacco Works of Louisville, Ky., and the J. G. Butler Co. of St. Louis.

[2] Already cigarettes are being manufactured and aggressively pushed by Liggett & Myers, and the Drummond Tobacco Co. of St. Louis.

ployed to protect the jobber against reckless cutting of prices, rather than to gain any special benefit for itself. Prices, penalties, commissions, etc., are all fixed by the company, in its agencies, or consignments, and few jobbers prosper in the cigarette business who do not accept the agency plan as the company gives it. If the company finds one of its agents selling under contract prices, it has the right reserved to call without notice for the balance of goods on hand and this agency is then closed, the agent receiving a check for the company's stock. The company minimizes its loss in case of an agent's failure by the consignment clause in its contract which allows the company to take all goods unsold and unsettled for.

The third and last subject for consideration within this period is the long and severe panic of 1893. For at least nine months of this year there was entire stagnation in every branch of the tobacco industry, and for at least eighteen months the output of all the factories was restricted. As late as June, 1894, the manufacturers were doing only a "hand to mouth" business, aiming to have just enough stock on hand to supply temporary demand and to keep their brands before the public. However, they pulled through the panic with as little loss probably as any other class of business men; a few enjoyed the fostering care of the banks, and all could save themselves in part by turning off hands and cutting down expenses. It was to the interest of the banks to be very careful with their customer's credit. Having received tobacco notes and securities during the summer of 1893, which they saw were not marketable for anything like their par value when priced at auction, they realized that they had actual property possessions and held them for better times, when a revival of trade would redeem them at something like their full value. In this way the tobacco markets and manufacturers tided over the summer, and were not thrown into chaos by failures due to the strained finances of the period. Indeed a few large plug factories worked the full time, through the panic, by

virtue of their large capital and cash selling. In the latter part of 1894 and the beginning of 1895 the revival of trade set in, but with this revival came also the necessity of final settlements, and as this demand proved too hard for some factories a few failures occurred. The sale of old stocks which had depreciated in value by reason of age, in a market where stocks had been accumulating for almost three years, did not return sufficient money for meeting old debts and current expenses, and the consequence was that several manufacturers went to the wall. The low price of cotton and the American Tobacco Company probably had as much to do with their failure as the contracted money market. Nine or ten manufacturers were bankrupt in the state during the whole period, and in the leaf trade, which had been drifting more and more into the hands of a few agents for large corporations, about one-third of the middlemen were driven out. The wages for factory hands remained the same throughout the panic and no strikes occurred.

CHAPTER VII.

The Manufacturer.

Section 1.—What has he to say about the taxes, the American Tobacco Company, and unrestricted competition?

As the taxes had been imposed to pay the expenses of a war in which Virginia had lost all her wealth and so large a proportion of her population, they would hardly be welcomed by Virginia manufacturers. All Virginians hated the tax, and many of the old manufacturers even now manifest intense indignation when discussing it. They feel that the tax was imposed on tobacco by the Union because the South and Virginia, which produced most of it, were largely responsible through the war for its necessity. They have steadily fought to lower it, and have succeeded in reducing it from 40 to 6 cts. As this is not burdensome, some willingly bear it, and a few manufacturers who have large capital would even prefer that the tax were higher still, since it would shut out some competitors. However, as a class, manufacturers would remove it entirely and would vote for a full divorcement of the government from the industry, since the agitation of the tax has invariably done such serious injury to the business.

To the plug manufacturer, the American Tobacco Company is a sure evil. There may be redeeming features about it for the consumer, retailer, jobber and planter, but there are none for him. The more of his business it destroys by its liberal gifts to the trade the better it is liked by the public; the people are gratified, but the manufacturer suffers.

To rid themselves of the evils of unscrupulous competition, the manufacturers have repeatedly agreed among themselves to maintain regular prices which would insure to all a reasonable profit, but as the fulfillment of such contracts was left entirely to the honor and pleasure of each

individual, and since no penalty was incurred by a breach of promise, these contracts were broken as often as made. The heavy costs and small profits resulting from unrestricted competition is forcing them to consider more and more the advantages of combination and co-operation; the tendency to consolidate is growing stronger every day.

Section 2.—To what extent has the manufacturer organized, and what has he accomplished by it?

As soon as the tobacco interests of a place develop, a local trade association is formed. This comprises on its roll all the leading leaf dealers, brokers and manufacturers. The purpose of the association is to advance the tobacco interests of the place by having joint counsel among its members in regulating the sale of loose tobacco at the warehouses, in securing equitable rates of freight, and in exercising such supervisory authority over all transactions as shall secure perfectly fair play between buyer and seller.

Under the Tobacco Association are different boards, as the " Manufacturers Board " and the " Tobacco Warehouse Board." The first is composed exclusively of manufacturers, and its purpose and province are limited to what may be called domestic or interior interests, such as fixing the scale of wages to be paid to the factory operatives. The object of the " Warehouse Board " is to agree upon an uniform system for conducting their general affairs and to protect the warehouseman's interests from outside adverse influences.

With such organizations it is very easy for tobacconists to bring their united influence and power to bear at once for the accomplishment of any end. By this union of effort they have directed law-making both in state legislature and in Congress; in the latter they have repeatedly lowered the tax; in the former they have changed the warehouse system and the inspection laws.

Before the year 1872 the fact of having an uneven and graded tax gave the manufacturers much annoyance, and to gain the adoption of a uniform tax they endeavored to

influence Congress through the General Assembly, which body they could reach through their associations. On February 20, 1872, the following resolutions were forwarded to Congress urging this reform:

"Whereas the unsettled state of the question of the tax upon tobacco has caused an almost total suspension of the tobacco manufacturing interests; and whereas, in consequence thereof a very large and indigent class of laborers, embracing at least 30,000 operatives, and those dependent on them, have been deprived of employment and the means of subsistence, thereby causing great distress and suffering among them, they being for the most part unsuited for any other employment; and whereas other branches of industry which are dependent upon the business of tobacco manufacture are like it, stagnated and paralyzed; and whereas, in the opinion of the General Assembly of this State, a uniform instead of graded tax upon tobacco would be highly beneficial to the trade in preventing fraud, and in doing justice to the plug tobacco manufacturers of the entire country, they being the largest class of manufacturers in said business of tobacco manufacture; therefore, first,

"Resolved, That the General Assembly of Virginia do most earnestly request the Congress of the United States to take up and at once act upon the question of the tax upon tobacco by enacting a uniform rate of tax upon all grades and descriptions of manufactured tobacco and snuff at the lowest possible rate consistent with the interests of the general government.

"Second, that the Senators from this state be instructed, and Representatives requested, to use their influence and vote for in the Congress of the United States the passage of such a law at the earliest possible moment."

We find that in the following June, Congress passed a law which changed the tax to a uniform one of 20 cts. The numerous reductions effected in the tax, which have occurred in as many as 12 or 15 different years, have all been preceded by like resolutions from the tobacconists and the General Assembly.

The change from the system of state warehouses to that of private warehouses and of inspectors appointed by the Government to those appointed by the trade was also brought about through the manufacturers' associations. In the legislature of 1874-1875 the manufacturers and warehousemen of Richmond had made their first earnest effort to get this important change, but they had failed because of the strong opposition offered at the time by the planters, who believed that the trade was trying to divorce the business from the state in order to manipulate charges to its own interest and to the injury of the tobacco-growers. But though the Richmond men were defeated at this time, they were not the less determined to gain their point; so that they renewed the contest in the session of 1877-78, and finally succeeded in making the desired changes.

Such have been some of the results accomplished by organization among the manufacturers. They have succeeded in this way in advancing their interests not only by joint counsel, but also by much favorable legislation and some concessions in railroad rates.

Section 3.—Relation of the manufacturer to his market.

The general relation of the manufacturer to his market is that of subordination; his time and money are spent in finding the wants of his buyers, and if once he learns their wishes he will surely cater to them. He is bound by no iron-clad custom. He is glad to answer any call of the trade, whether it be for cheap or high-priced tobacco, mild or strong, bright or black. In many instances he has acted as the employee of the jobber, who has hired him to supply special brands, particularly well suited to the jobber's own trade, over whose prices the jobber is to have full control.

But the manufacturer is in some measure master of his market too; by creating new wants he can give direction to the demand. When the trade seems to have no special preferences he may get out a brand that pleases every one, that becomes fashionable and popular, and in this way by creating a new demand may give direction and character

to consumption. Since he knows that tastes can be cultivated, he takes as much care in the concoction of his flavorings as the confectioner does in mixing his candies, and in so far as he is able to create a decided preference for his own special flavorings, just so far is he liable to get wide sales and to make extraordinary profits. He recognizes also that the appearance and name of a thing, as well as its quality, has much to do with its sale, so he appeals to both the eye and ear in placing his goods before the public. A cigarette drummer affirms that one-half the battle in establishing a new brand is the selection of a euphonious name, and the pleasing names given to all classes of tobacco would certainly argue that there was some truth in the statement.[1]

But not only is the manufacturer master of his market in the sense that he can make decided changes in demand and can give special directions to consumption, but also in the sense that he largely creates and supports the entire general demand that exists at any one time. He starts with the consumer and makes the trade for all the intermediate agents which comprise his selling market, and he has the power, on well established brands, to contract or enlarge his trade in a degree at will through the manipulation of prices and the offering of special inducements. His largest chance for profit lies in this control of selling prices, by which he can extend his market and force out small competitors, and not, as many planters believe, in the continued reduction of prices on leaf.

Section 4.—What has been the manufacturer's explanation of the low prices for leaf tobacco?

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[1] Note a few of them: for cigarettes, "Pearl's Pet," "Trio's Delight," "Old Soldier," "City Talk"; for cigars and cheroots, "Cuban Dainties," "Centennial Pets," "Little Darlings"; for plug, "Dwarf Roses," "Peach and Honey," "Pioneer's Delight," "Sweet Reverie," "Just the Thing," "Take-a-Chew"; for smoking tobacco, "Farmer's Choice," "Old Rip," "Fruits and Flowers," "Virginia Creeper," "Planter's Pride," etc.

He has given eight reasons, more or less distinct:

1. Over-production of inferior grades.

2. The planter's ignorance of the demands of the market; no aim to make special grades; too much nondescript.

3. Excessive use of commercial fertilizers, which have stimulated too rapidly the growth of tobacco and have injured it by not giving the plant time to mature.

4. The soil not suited to the variety grown.

5. Poor culture and rough handling, due to leaving the care of the crop to negro tenants.

6. Impoverished soil employed without the assistance of good manures or fertilizers.

7. New and inexperienced farmers trying the crop in other states.

8. An increased production of tobacco in foreign countries.

CHAPTER VIII.

Conclusions.

From the foregoing discussion of the entire subject we think we may safely draw the following conclusions:

1. General prices of tobacco have materially declined in recent years; the decline is due in part to the farmer's poor methods of culture and curing, but in the main to causes beyond his control—general over-production in all the states and in foreign countries, this being considered a cause beyond the control of the farmers of a single state, such as Virginia.

2. Low prices have caused some restriction of tobacco acreage and some diversification of crops.

3. It will no longer pay to raise tobacco to the exclusion of other crops; fine tobacco still returns a handsome profit to the planter, but as only fine tobacco which meets special demand pays, there exists imperative necessity for further specialization in production.

4. Farmers' organizations have proved successful; they have been much more helpful to their members as business organizations than as political ones. There exists, however, in an alliance of farmers the possibility of exercising great political power.

5. Many successful farmers have been materially aided by patronizing the Farmers Institutes and by reading agricultural papers.

6. The manufacturer studies his market closely.

7. The general policy of manufacturers is to organize; their associations have been highly beneficial.

8. Unequal and unjust tax laws have encouraged dishonest practices.

9. The evils of unrestricted competition seem quite as pernicious as those of trusts.

10. Against the American Tobacco Company it may be said:

(*a*) It has lowered the price of leaf tobacco.

(*b*) It has injured the manufacturer's leaf market by monopolizing certain classes and leaving less variety to select from.

(*c*) It has injured his selling market by sacrificing tobacco to sell cigarettes.

(*d*) It has checked the natural development of competitive cigarette factories by acquiring control of the most important cigarette machines.

(*e*) Having almost entire control of the trade, it has been able to determine prices arbitrarily on many popular brands.

For the company it may be said:

(*a*) By its large advertisement both in the United States and foreign countries it has built up an immense market for cigarettes, and this has well sustained the price on cutters.

(*b*) The jobber and retailer have received a fair commission when consenting to do business in the company's own way.

(*c*) The consumer has been given a very acceptable grade of cigarette at a reasonably low price.

(*d*) As an advantage to the citizens of Richmond, it may be added that its immense business builds up the place where its factories are located in a way commensurate with its great enterprise, furnishing employment to hundreds of operatives and making very considerable contribution to the city's taxes.

INTERNAL REVENUE REPORTS ON VIRGINIA.

Year.	Per ct. U. S. Inter. Revenue paid by Virginia.	Per ct. total Rev. from Tobacco paid by Virginia.	Amount Revenue from Virginia Tobacco.	Amount Internal Revenue paid by Virginia.
1864	.126	.073	$	$ 137,513.72
1865	.112	.110	12,517.34	221,273.39
1866	.405	1.451	238,873.28	1,175,447.50
1867	.793	1.510	283,437.32	1,966,722.02
1868	1.018	2.269	423,521.31	1,783,319.60
1869	1.919	6.512	1,525,912.45	2,744,144.45
1870	3.280	12.977	4,068,220.78	5,496,351.39
1871	4.160	12.996	4,363,911.17	5,319,272.69
1872	4.284	11.797	3,980,005.03	4,939,027.93
1873	6.912	19.098	6,567,039.68	7,343,799.29
1874	6.547	17.157	5,703,425.66	6,308,664.96
1875	7.383	18.871	7,039,615.15	7,660,921.20
1876	6.606	17.467	6,951,119.77	7,314,393.64
1877	7.048	18.163	7,465,982.94	7,932,220.78
1878	6.209	15.328	6,145,442.85	6,501,730.29
1879	6.015	15.228	6,111,908.26	6,448,546.88
1880	4.948	13.806	5,366,272.82	5,781,409 58
1881	4.742	13.220	5,665,369.58	6,063,105.75
1882	4.480	12.237	5,799,346.76	6,226,308.30
1883	3.693	11.259	4,740,352 52	5,078,146.35
1884	2.664	11.048	2,879,374.21	3,232,726.10
1885	2.715	10.266	2,710,814.20	3,052,639.72
1886	2.551	9.434	2,632,896.59	2,982,727.70
1887	2.460	8.633	2,599,136.12	2,923,394.64
1888	2.617	9.616	2,948,620.12	3,253,165.72
1889	2.524	9.435	3,006,520.83	3,303,626.48
1890	2.466	9.410	3,195,382.22	3,516,195.49
1891	2.197	8.763	2,873,914.60	3,208,066.34
1892	1.895	8.132	2,520,940.99	2,915,412.52
1893	1.809	8.080	2,576,934.65	2,912,548.28
1894	1.731	7.559	2,163,146.99	2,548,051.75

TOBACCO MANUFACTURED—TOTALS FOR VIRGINIA.

	Plug, Pounds.	Fine Cut.	Smoking.	Snuff.	TOTAL.	On Hand.	Total to be Accounted For.	On Hand, Unsold.	Exported in Bond.	Sold.	Stamps required for Sales.
1880	39,393,994	2,211	1,275,569	6,133		924,157	42,602,066				
1881	43,925,784		1,405,479	6,609		751,014	46,088,886				
1882	36,500,299		1,158,951	11,979		748,616	38,419,846		9,989,335		
1883	45,129,962		1,164,156	23,262	46,317,380	9,074,507	55,239,837	9,707,026	7,915,774	37,952,034	$3,521,989.80
1884	35,630,657		783,283	73,028	36,486,968	9,420,897	45,907,865	8,209,177	7,604,637	30,094,051	2,409,243.32
1885	44,086,437		1,222,923	17,050	45,226,410	8,978,626	54,205,036	11,545,173	10,019,765	32,640,098	2,611,207.84
1886	38,238,063		903,353	112,019	39,253,435	11,637,496	50,890,931	12,965,608	9,121,774	28,803,549	2,304,283.92
1887	35,670,004		1,386,825	168,473	37,225,302	12,184,378	49,409,680	9,130,032	8,715,855	31,563,793	2,525,103.44
1888	37,011,355		1,339,792	337,725	38,688,872	9,019,428	47,708,300	7,705,370	10,038,192	29,964,738	2,397,179.04
1889	42,899,807	9,575	1,385,196	759,450	45,054,028	8,167,719	53,221,747	9,938,584	10,168,487	33,114,676	2,649,174.08
1890	34,624,504	72,783	1,932,890	729,768	37,359,945	9,641,777	47,001,722	7,915,392	8,907,572	30,178,758	2,414,300.64
1891	38,729,912		2,910,019	776,397	42,416,328	8,530,869	50,947,197	8,778,578	9,480,263	32,688,356	1,961,301.36
1892	34,089,859		3,538,559	776,517	38,404,935	8,246,394	46,651,329	8,170,199	8,550,583	29,930,547	1,795,832.82
1893	30,316,865		3,667,991	583,200	34,568,056	8,330,182	42,898,238	7,850,575	8,645,975	26,401,688	1,584,101.28

VIRGINIA—CIGARS AND CIGARETTES.

	No. of Factories having one account.	Pounds of Tobacco used.	Pounds used in Cigars.	Pounds used in Cigarettes.	No. Cigars Manufactured.	No. Cigarettes Manufactured.
1877	148	236,467			9,851,107	
1878						
1879						
1880	141	613,994			19,378,344	52,259,440
1881	132	754,107			22,669,345	69,498,590
1882	160		788,888		24,276,884	88,722,350
1883	153	922,332	(Both Cigars and Cigarettes.)		29,331,753	116,846,245
1884	186	998,675			57,595,761	(Both Cigars and Cigarettes.)
1885	172	1,123,742			40,330,464	
1886	168	1,264,520			24,778,395	273,344,710
1887	181	1,885,180			35,524,498	384,704,210
1888	199		2,484,022		44,966,938	530,842,000
1889	216	2,808,738	(Both Cigars and Cigarettes.)		65,679,118	566,130,000
1890	204	3,049,356			85,370,577	591,795,880
1891	227		1,516,000	1,655,646	104,771,522	647,073,560
1892	217		2,309,459	1,974,275	130,836,613	750,314,753
1893	265		1,527,589	3,019,931	103,482,527	802,929,195

REVENUE OF THE UNITED STATES FROM TOBACCO.

	Manufactured.	Snuff.	Cigars and Cheroots.	Cigarettes.	Total for Tobacco.	Per ct. of tot'l rec'pts com'g from Tobacco.[1]	Average rate tax per lb.[1]
1863	$2,578,972.43		$ 476,589.29		$3,097,620.47		$.10\frac{96}{100}$
1864	7,086,684.74		1,255,424.79		8,592,098.98	7.33	$.11\frac{35}{100}$
1865	8,017,020.63		3,072,476.56		11,401,373.10	5.40	$.22\frac{8}{100}$
1866	12,339,921.93		3,474,438.94		16,531,007.83	5.32	$.34\frac{77}{100}$
1867	15,245,477.81		3,661,984.39		19,765,148.41	7.43	$.33\frac{68}{100}$
1868	14,947,107.53		2,951,675.26		18,730,095.32	9.80	$.33\frac{56}{100}$
1869					23,430,707.57	14.64	$.27\frac{1}{100}$
1870	24,300,483.42		5,718,780.04		31,350,707.88	16.92	$.26\frac{91}{100}$
1871	25,560,539.61		6,598,173.24		33,578,907.18	23.31	$.26\frac{87}{100}$
1872	18,674,569.26	$5,896,206.33	7,566,156.86		33,736,170.52	25.60	$.25\frac{81}{100}$
1873	22,311,398.15	1,086,460.07	8,940,391.48		34,386,303.09	30.14	$.20\frac{38}{100}$
1874	20,900,509.67	1,038,445.92	9,333,592.24		33,242,875.62	32.39	$.20\frac{36}{100}$
1875	24,133,726.48	1,067,033.03	10,205,827.53		37,303,461.88	33.75	$.21\frac{10}{100}$
1876	25,694,312.56	1,061,467 64	10,969,787.28	$135,485.17	39,795,339.91	33.94	$.24\frac{24}{100}$
1877	27,053,072.38	1,095,695.52	11,061,278.15		41,106,546.92	34.54	$.24\frac{24}{100}$
1878	25,320,158.08	1,063,714.22	11,430,144.60	289,081.79	40,091,754.67	36.09	$.24\frac{24}{100}$
1879	24,703,874.90	902,135.35	12,115,468.39	416,984.43	40,135,002.65	35.23	$.21\frac{27}{100}$
1880	21,170,154.40	634,609.34	14,206,819.49	715,269.39	38,870,140.08	31.22	.16
1881	22,833,287.60	689,183.03	16,095,724.78	992,981.22	42,854,991.31	31.56	.16
1882	25,033,741.97	778,650.78	18,245,852.37	972,570.10	47,391,988.91	32.22	.16
1883	22,136,402.53	736,022.82	16,895,215.15	929,974.73	42,104,249.79	29.00	$.13\frac{42}{100}$
1884	13,488,047.41	448,211.58	10,368,805.27	454,409.01	26,062,399.98	21.43	.08
1885	13,953,400.31	508,943.52	10,077,287.50	529,535.88	26,407,088.48	23.49	.08
1886	14,834,095.42	493,283.80	10,532,804.05	655,569.55	27,907,362.53	23.87	.08
1887	15,995,019.46	524,942.26	11,364,916.33	792,279.60	30,108,067.13	25.34	.08
1888	16,154,049.05	594,950.13	11,534,179.95	931,363.05	30,662,431.52	24.66	.08
1889					31,866,860.42	24.35	.08
1890	18,325,481.36	737,731.27	12,263,669.95	1,116,627.34	33,958,991.06	23.82	.08
1891	17,080,632.67	726,155.39	13,424,678.30	1,342,269.38	32,796,270.97	22.46	$.07\frac{1}{100}$
1892	15,237,742.32	669,861.08	13,646,398.25	1,446,491.42	31,000,493.07	20.15	.06
1893	15,143,984.91	714,773.63	14,442,591.35	1,588,361.85	31,889,711.74	19.80	.06
1894	14,127,108.31	697,625.52	12,200,752.30	1,592,412.49	28,617,898.62	19.45	.06
							13.53

[1] See Census Reports of 1880 for the dates of changes in the tobacco tax laws.

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III-IV-V

THE STREET RAILWAY SYSTEM OF PHILADELPHIA
ITS HISTORY AND PRESENT CONDITION

JOHNS HOPKINS UNIVERSITY STUDIES

IN

HISTORICAL AND POLITICAL SCIENCE

HERBERT B. ADAMS, Editor

History is past Politics and Politics are present History.—*Freeman*

FIFTEENTH SERIES

III-IV-V

THE STREET RAILWAY SYSTEM OF PHILADELPHIA ITS HISTORY AND PRESENT CONDITION

BY FREDERIC W. SPEIRS, Ph. D.

Professor of Economics and History, Drexel Institute, Philadelphia

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CONTENTS.

INTRODUCTION.

During the past few years the public mind has been awakening to a realization of the social and economic importance of the local transportation systems of great cities. Public opinion is beginning to demand that in the administration of such transportation systems the interests of the entire community rather than the promotion of private ends shall be regarded. Some of the European cities have assumed the direct management of their street railways, while American cities have attempted various plans of regulation and control of the corporations which conduct their service. These recent experiments to reduce the cost of service and improve its character have attracted much attention. But while there has been extended general discussion, there have been few comprehensive studies of particular systems in this country, and the discussion has thus suffered from the lack of exact knowledge regarding local conditions in American cities.

The present study is an attempt to make to the general discussion a contribution of fact regarding local transportation in one of the largest of our cities. It has been conceived as a strictly local study, and the temptation to indulge in comparisons and generalizations has been resisted as far as possible.

The railway system of Philadelphia presents many features of special interest to the student of the general problem. The city is spread over a large area, the municipal limits embracing 129 square miles, and the length of surface railway lines is thus greater than that of any other city in America, with the exception of Chicago. Philadelphia having adopted the "rail-bus" very early, the history of the system covers the entire period of railway development in this country. The experience of the city in the enforcement of the obligations imposed upon its companies

for the purpose of securing compensation for franchise privileges is very instructive, and, unfortunately. not unique. The financial operations by which the values of railway stocks have been inflated until the present operating company is staggering under interest and lease charges amounting to 54 per cent. of gross receipts, are most interesting, although they do not possess the charm of novelty, being indeed quite typical of conditions in almost all large cities in this country. The process of monopolization is also typical, and therefore of more than local interest.

The writer is indebted to Professor Joseph French Johnson and Dr. L. S. Rowe, of the University of Pennsylvania, to Mr. Charles Richardson, of the Municipal League, and to Mr. Joseph H. Patterson, of the editorial staff of the *Evening Telegraph,* who have read the proof and offered valued suggestions. He is also indebted to Mr. Talcott Williams, of the *Philadelphia Press,* who with characteristic generosity lightened the burden of consulting newspaper files by extending the privilege of the use of his large collection of clippings.

THE STREET RAILWAY SYSTEM OF PHILADELPHIA.

ITS HISTORY AND PRESENT CONDITION.

CHAPTER I.

The Beginnings of Local Transportation in Philadelphia.

The history of local transportation in Philadelphia begins in 1831. At this time the municipal limits, which had not been enlarged since the grant of the original charter by Penn, in 1701, embraced about two square miles, containing a population of about 81,000. But by 1831 the urban population had greatly outgrown the limits of the original city, and Philadelphia was surrounded by a fringe of boroughs, townships and incorporated districts, independent governmentally, but, in conjunction with the city, constituting physically a single urban district of about 175,000 inhabitants.

The inauguration of a system of local transportation was heralded by the following newspaper advertisement which appeared in December, 1831: "James Boxall having been requested by several gentlemen to run an hourly stage-coach for the accommodation of the inhabitants of Chestnut Street, to and from the lower part of the city, begs to inform the citizens generally that he has provided a superior new coach, harness and good horses for that purpose. Comfort, warmth and neatness have in every respect been carefully studied. This conveyance will start from Schuylkill-seventh and Chestnut Streets every morning (Sundays excepted) at 8.30 o'clock, every hour until 4.30 in the afternoon, down Chestnut Street to the Merchant's Coffee House in Second

Street; and return from the Coffee House at 9 o'clock, and every hour until 5 in the evening. This accommodation will be conducted and driven solely by the proprietor, who hopes to merit patronage and support. Fare each way, 10 cents; or tickets may be had of the proprietor at twelve for one dollar."

The Boxall Hourly Stage Coach proved profitable, and in 1833 an omnibus line was established, running at right angles with the original line the extreme length of the city, from the Navy Yard to Kensington, by way of Second Street. Omnibuses ran hourly on this route, conveying passengers for 12½ cents. The success of these early ventures led to the rapid multiplication of omnibus lines, and soon ponderous vehicles were rattling over the cobblestones and floundering through the mud-holes of Philadelphia's main thoroughfares in such numbers as to give very satisfactory transportation facilities to the rapidly growing city.

Many of these lines were supported by subscription, each subscriber buying an annual ticket at a price which amounted to the very reasonable fare of a penny a ride for those who rode regularly four times a day. Non-subscribers paid ten cents or twelve and one-half cents for each ride in the early days, but later competition reduced the single fare as low as three cents on some of the shorter lines.

The omnibuses held the transportation field unchallenged and played a most important part in the development of the city for about twenty-five years, and then, in 1858, coming into competition with the street cars, they were forced out of use by their more rapid and comfortable rivals. The speedy disappearance of the omnibuses on the advent of street railways is indicated by the license returns as given in the reports of the City Controllers. In 1855 the municipal Councils had passed an ordinance exacting an annual license fee of fifteen dollars for each omnibus regularly running on the streets. In 1857, the year before the first street railway was opened, the amount of these fees indicates that 322 omnibuses were in service; in 1858 the number had fallen to 222;

in 1859 there were only 56 of the omnibuses in use; while in 1864 the total return from the omnibus tax was $15, witnessing that one lone survivor was offering the public the privilege of jolting over the cobbles in the good old-fashioned way. The withdrawal of the omnibuses was faciliitated by the charter provision of the newly incorporated railway companies, which forced them to purchase at a fair valuation the equipment of the omnibus companies.

Meantime John Stephenson had been working on his idea of an omnibus running on rails laid in the street. As far back as 1832 he had built a "rail-bus," accommodating thirty persons in three compartments, with seats on top for additional passengers. This had been placed on the New York and Harlem Railroad. The innovation does not seem to have been well received, and for twenty years the idea lay dormant. Then it was revived, and capitalists sought from the legislatures of Massachusetts, New York and Pennsylvania authority to construct "horse-power railways," as they were then termed. Philadelphia, being a large city spread over a considerable area, was naturally one of the most promising fields for investment in the new enterprise.

As early as 1855 the Councils appointed a "Special Committee on City Passenger Railroads." This committee sought an opinion on the desirability of these roads from Mr. Strickland Kneass, Chief Engineer and Surveyor. In a report dated October 12, 1855, he pointed out the great advantages of the proposed railways in comparison with the omnibus system and gave the committee detailed information with reference to the engineering questions involved.

On June 9, 1857, the Philadelphia and Delaware River R. R. Company, operating a steam road, secured from the General Assembly of Pennsylvania a supplement to its charter, authorizing the construction of a street railway on Fifth and Sixth Streets, to be operated by horses, and on January 20, 1858, the first street car line in Philadelphia was opened to the public.

This first railway was built in face of wide-spread opposition. Street railways had been for some time in successful operation in New York and Boston before the first Philadelphia road was begun, but the advantages of the "rail bus," which the experiments in these cities had placed beyond question, do not seem to have deeply impressed the citizens of Philadelphia.

On February 23, 1857, while the charter of the first street railway was pending, there was presented to the General Assembly "An Address and Remonstrance against the Fifth and Sixth Streets Railway," signed by twelve hundred residents along the proposed line. Several of the newspapers protested against the introduction of the railways, and a considerable number of the most prominent and influential citizens supported the opposition. Elaborate arguments against the system were printed in pamphlet form and circulated by zealous opponents. The principal objections as reflected by the pamphlets and newspapers of the day may be summarized as follows, stripped of their extravagant verbiage:

(1) That the proposed railways were a mischievous speculation, aiming at monopoly of transportation along the great lines of travel.

(2) That the rapidly moving cars could not be readily stopped and would thus be exceedingly dangerous to life and limb.[1]

(3) That the cars would disturb the repose of the streets through which they passed and make city life intolerable by the increase of noise.

(4) That on account of the danger of the railways and of

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[1] "It is perhaps scarcely worth while to allude to the fact that in New York they kill one person each week on city railroads and mangle three or four upon an average in the same space of time. . . . . Human life is really of little value now-a-days, and the general opinion among railway corporators is that people that get in the way of the cars 'ought to get killed.'"—*Sunday Dispatch*, June 21, 1857.

See table of accidents on passenger railways in appendix, page 123.

the noise, property along the lines would be heavily depreciated.

(5) That the streets were already overcrowded, and the introduction of railways would increase the congestion of traffic.

(6) That the rails would ruin the streets for the use of carriages and wagons.

The advocates of the new system took the ground that the opposition to railways was but a new phase of an old antagonism to progress. A pamphlet published by railway promoters begins: "That conspicuous ascendancy over all cities of America which, at one period, was the incontestable prerogative of Philadelphia, is gradually but palpably passing away. Her financial, commercial and political supremacy are already gone. A palsy seems to have stricken her. . . . . Her policy now is but a reflex of what it was some forty years ago—the era at which her relative retrogression visibly began. Four or five years of ferocious resistance were then opposed to the introduction of hydrant water. . . . . A similar scene transpired upon the introduction of gas. Five or six years were spent in the most furious agitation before our intolerable fogyism could be dissipated. . . . . Last, but not least, in the same category, come city railways."

Much vigorous Anglo-Saxon was used on both sides and the fight waxed warm. It was quite generally believed that corrupt influences were at work in the General Assembly to secure the supplementary charter authorizing the construction of the railway, and many who looked with favor on the railway system felt constrained to oppose the grant of privileges to the Philadelphia and Delaware River R. R. Company. The protest was unavailing, and the charter for the Fifth and Sixth Streets line was granted, the passage of the act being announced editorially by one of the local papers under the heading "Sold and Delivered." Of the charter, the editorial says: "Conceived in wickedness and brought forth in infamy, it is a monument of disgrace to a Pennsylvania Legislature."

Once in operation, the first railway proved an immediate financial success. This success inspired numerous applications to the General Assembly for charters for other lines. The convenience of the new system as exemplified by the Fifth and Sixth Streets railway caused many to forsake the ranks of the opposition, but the objectors were still numerous and active. The opponents of the Second and Third Streets Passenger Railway Company, chartered in 1858, invoked the aid of the courts in their struggle against it. They asked for an injunction to prevent the construction of the road, on the ground that the proposed railway would be a public nuisance.[1] The injunction was denied, the Court saying that while a railway may "occasion loss or inconvenience, it may depreciate the value of property and render its enjoyment incommodious and almost impossible, yet this is *damnum absque injuria.*" After this decision the remonstrants abandoned hope of relief from the courts.

In 1858 a charter was secured authorizing a railway company to occupy two of the most important business and residence streets in the city, Chestnut and Walnut Streets. A perfect storm of protest was aroused by the threatened invasion of these sacred precincts. Since the General Assembly had already granted the charter, the remonstrants turned to Councils, praying that the consent of the representative body of the city, which was requisite for the construction of the road, should be refused. The seriousness of the protest is disclosed by a petition submitted to Councils, in which it is shown that the owners of 16,660 feet of taxable real estate frontage on the streets involved, out of a total frontage of 30,327 feet, oppose the railway. An interesting side light is thrown on the methods of street railway promoters in those early days by the statement in a pamphlet[2] published by the remonstrants, that when the

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[1] Faust et al. vs. Passenger Railway Co., 3 Phila. Reports, 164.

[2] Objections to the Approval by City Councils of the Charter of the Central Pass. Ry. Co. By "Philadelphian." August 21, 1858.

petitions in favor of the railway were analyzed it was found that 216 names on the petitions were not in the city directory of that year, 290 signers lived at a distance from the streets named, and only 42 of the petitioners were persons directly interested in the streets which the railway wished to occupy.

The arguments against the grant to the railway company are interesting. The opposition, in this case, does not appeal to the prejudice and blind conservatism brought into play earlier, but rests its case on three points, the last two of which might be seriously urged to-day under similar conditions. These points are: (1) Injury to property-holders along the line; (2) Indefinite powers granted to the company by the charter; (3) Inadequate return to the city for the valuable privileges asked. The argument on the first point aims to show that the property-holders on Chestnut and Walnut Streets will sustain through the construction of the road an injury estimated at $1,500,000. In the second place, the charter is shown to convey very large powers to the company, with inadequate control by the municipality. In the third place, the remonstrants proceed to a consideration which is most interesting in the light of later developments. The terms of the proposed grant called for the payment to the city of a license fee of fifty dollars for each car used on the line, and also required the company to keep in repair the streets occupied by its tracks. "What, then, should be the price paid by the company for such important privileges and concessions to them? It will not be gravely maintained that the price stipulated in the charter is anything but a mockery." It is then urged that if the streets are to be given to the company, Councils should prescribe an "equitable bonus" for privileges granted, and in addition require shares of capital stock to be sold at auction and the premium on sales to be paid into the city treasury. The railway promoters had made much of the large benefit which the city was to receive from their enterprises, and in many cases had posed as unselfish devotees of the public weal.

The opponents remark that in some quarters there has been manifested a disposition to question the sincerity of this devotion to the public good, and even to insinuate that the zeal of the railway promoters was due in large measure to expectations of excessive private profit. The remonstrants thus demand from Councils provision for an adequate return to the city for the valuable privileges requested, urging that the railway promoters who claim to have the public interest at heart cannot consistently oppose an ordinance safeguarding that interest.

The clever and forcible protest did not avail. Chestnut and Walnut Streets were given over to the Central Passenger Railway Company without the imposition of the conditions requested. It was freely charged at the time that the railway company had opposed to the reasoning of the remonstrants the less admirable but more effective argument of stock distribution among the Councilmen, and unfortunately the experience of Philadelphians with their municipal Councils has been such as to make it easy for the average citizen to credit the charge.

Meantime the construction of the lines was being rapidly pushed. Two companies had been incorporated in 1857, ten were chartered in 1858, and six more in 1859. Thus within two years from the grant of the first charter, eighteen railway companies held franchises in Philadelphia. The excessive liberality of the General Assembly in the matter of grants to street railway promoters was viewed with alarm even by the most progressive citizens, who had warmly welcomed the first railways. But the enlightened protest against the multiplication of companies was futile. An attack of what was termed by the men of the time "passenger railway insanity" had seized the investors, and with a complacent State legislature to grant charters and a not over-scrupulous municipal legislature to approve the grants, the construction of roads went on with great rapidity. The great panic of 1857 had swept the country, leaving financial ruin behind, but there was no lack of money to build the

railways, and most of those authorized were promptly put in operation.

By August, 1858, seven roads were under contract, the total length being about fifty miles. On five of these roads in operation late in 1858, the total number of passengers carried daily was estimated at 46,000. The new roads not only absorbed all the business of the old omnibuses and drove them from the field, but the improved facilities greatly stimulated travel. We are told, for example, in 1858, that on the Philadelphia and Darby Railway, running through a suburban district, " five cars are insufficient to accommodate the permanent travel originally performed by one omnibus."

The new transportation system rapidly conquered public favor. Even the ultra-conservatives, who threatened to sell their property and leave the city if the dreaded railway were allowed to invade the peaceful streets of Philadelphia, remained to ride in the new conveyances, and learned with pleasure that even the dangerous horse car, whose wild rush through their streets they had anticipated with alarm, might in the proper environment be regulated to a rate of progress entirely safe and quite in keeping with the requirements of a city which had a reputation for sobriety and moderation to maintain. In January, 1859, Mayor Henry was able to say in his message to Councils: "Perhaps no public improvement ever occasioned more contrariety of opinion than the occupation by the passenger railway system of the streets of this city, and perhaps none has ever promised more general benefit to the community."

CHAPTER II.

Episodes in the Early History of Street Railways—The Contest over Sunday Cars—The Admission of Negroes to Street Cars.

The Contest over Sunday Cars.

The community had hardly settled down to a cheerful acceptance of the new system of transportation when it was aroused to renewed controversy over the passenger railways. Two lines announced their intention of running cars on Sunday, beginning July 10, 1859.

Philadelphia had from the beginning most rigorously observed the day of rest. All public conveyances were stopped on that day. A law of 1798 had even authorized churches to stretch chains across the streets in front of their houses of worship, in order that the passage of carriages should not disturb the service. In 1853 an attempt to run omnibuses on Sunday in Pittsburg had resulted in a decision of the Supreme Court[1] that such action was in violation of law.[2]

Anticipating opposition to Sunday travel from the conservative religious element in the community, the management of the Ridge Avenue and Manayunk Company diplomatically added to their newspaper announcement of Sunday cars: "This arrangement will enable persons residing temporarily in the country to attend their usual places of worship in the city."

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[1] Commonwealth vs. Johnson, 22 Pa. State Reports, 102.

[2] The statute quoted in this and subsequent cases dated back to 1794. It provided, "If any person shall do or perform any worldly employment or business whatsoever on the Lord's Day, commonly called Sunday (works of necessity and charity only excepted) . . . every such person so offending shall, for every such offense, forfeit and pay four dollars . . . or suffer six days imprisonment."

But the diplomacy was unavailing. A storm of protest greeted the operation of the roads on the first Sunday. The citizens opposed to Sunday cars appealed to Mayor Henry, and he undertook to convey their protest to the companies in his official capacity. The directors of the companies involved refused to accede to the wishes of the mayor and the citizens whom he represented, but agreed to compromise by refraining from starting the cars until one o'clock in the afternoon, by removing bells, and by ordering drivers to walk their horses past all places of public worship and to carefully avoid all unnecessary noise.

On July 17, the second Sunday, the driver of the first car out of the barn was immediately arrested, charged with breach of the peace. On habeas corpus proceedings, Judge Thompson, of the Supreme Bench, held the driver for trial, declaring that in his opinion the operation of cars on Sunday was in violation of the statute of 1794, already cited.[1] The judge said significantly: "This city has for one hundred and fifty years obeyed the law faithfully in its observance of the Sabbath, and it is not perceptible wherein either its prosperity or character has suffered." On trial in Quarter Sessions the driver was released on the ground that since he had been arrested as soon as his car left the barn, no breach of the peace had actually occurred.

Meantime the discussion raged hotly in the columns of the newspapers and in mass-meetings. Large public meetings of the opponents of Sunday travel were held on Tuesday, July 12, and on Friday, July 15, 1859. The advocates of Sunday cars gathered in mass-meeting in Independence Square on July 21 and July 30, and listened with enthusiasm to vehement speeches on individual liberty. At the meeting of July 30, a Committee of Ninety-Six was appointed to secure for the people the right of Sunday travel.

Parts of the discussion which have been preserved in the columns of the newspapers of the day are highly diverting. In a letter entitled "The Origin of Sunday and the Char-

[1] Commonwealth vs. Jeandelle, 2 Grant's Cases, 506.

acter of Constantine, its Founder," a correspondent of the *Sunday Dispatch* gravely argues for the right of the people to street car service on Sunday on the ground that Constantine, the originator of the observance of Sunday, foully murdered two brothers-in-law, a nephew, and an intimate friend, in addition to boiling his wife to death, and therefore Constantine and his institution of Sunday were not entitled to the respect of the good people of Philadelphia.

The opposition to Sunday travel scored a triumph on October 18, 1859, when the stockholders of the road which had led the movement for Sunday railway service, by unanimous vote, decreed that thereafter traffic on their line should be suspended on the first day of the week.

However, during the following year the Frankford and Southwark Company for a time ran cars from their Frankford terminus a considerable distance toward the centre of the city, and then made connections with omnibuses which conveyed their passengers the rest of the distance. In a few other instances the railways ran cars on Sunday, but there was no attempt to establish regular travel on that day for several years.

Sunday cars were already running in Boston, New York, Baltimore, Washington, St. Louis, Chicago and several other cities, when late in 1865 the Union Passenger Railway Company determined to operate its road on the first day of the week. To forestall an attempt to stop the cars the Company resorted to the expedient of securing from the United States government a contract to carry the mails. The ingenious device of running the cars on Sunday under the protection of the Federal authorities aggravated the indignation of the opponents of Sunday travel, and the community was mightily stirred by the ensuing discussion.

A bill in equity for injunction against the Union Company to prevent the running of Sunday cars was finally filed, under the claim that the operation of the railways on that day involved injury to the plaintiffs in their rights of property in their houses and their church pews. In December,

1866, Judge Strong, in Nisi Prius, granted the preliminary injunction, and the case went to the Supreme Court. The decision in Nisi Prius was not unexpected, since Judge Strong had presided at one of the church meetings called to protest against Sunday cars.

Meantime the aid of the General Assembly of Pennsylvania had been invoked by those who wished to use the cars on Sunday, and in the spring of 1866 a bill had been introduced providing that the question should be submitted to the vote of the people of Philadelphia. The sentiment of the Senate is sufficiently indicated by its reference of the bill to the "Committee on Vice and Immorality." The committee failed to report the bill. The measure was also defeated in the House.

In the session of 1867 another attempt was made to secure legislative sanction for Sunday cars. The bill was defeated by a close vote in the Senate, all the Philadelphia senators voting for it. The apprehension of the extreme conservatives with reference to the effects of Sunday cars is voiced by a speech made while the bill was under consideration in the House, by a country member, M. B. Lowry. He said: "This bill will require you to double your police force on the Sabbath, it will throng your mayor's court on Monday morning, it will fill your almshouses with starving children during the week, it will decrease your Sabbath schools and increase your prisons, it will open the road to vice and fill the highways with its votaries."

But although such argument availed with the country members of the Legislature, the triumph of the advocates of Sunday cars was close at hand. The injunction case, already mentioned, was considered by the Supreme Court in November, 1867. Mr. Sparhawk and the others contended that the operation of the railways on Sunday depreciated the value of their houses and their pews. Their statement says: "The effect of the disturbing influences complained of is shown as well in the cases of the appellees, who are residents and owners of property, some of whom have

actually been compelled to abandon the use of their front rooms on Sunday and retire to other parts of their dwellings, in order that they might engage in such devotional exercises as they had been accustomed to, with their families, on that day." From the standpoint of disturbance of public worship, Rev. John W. Mears presents the case of the opposition to Sunday cars in the following testimony: "It was necessary for me to make an unusual effort to keep up the train of thought, to make my voice audible as it should be. To be thus compelled, in a regular Sunday service, to pray against or in rivalry with outside noises, I consider a grievous annoyance, and one against which I, as a worshipper of God and leader of the devotions of others, should be protected in a professedly Christian commonwealth."

In reply to the statements of the appellees, the railway company averred that in running their cars on Sunday they were performing an act of necessity and, moreover, of charity, since they were promoting the cause of true religion as well as the health of the city by assisting people to go to church and to breathe fresh air.

The Court declared that injunction was not the proper remedy, since the action complained of was not an injury which should be dealt with by equity process. The case came under the statute of 1794, providing a fine as the penalty of infraction. Permanent injunction was therefore denied. Justice Read, concurring with his colleagues, went much further than the majority of the Court. In a learned opinion fairly bristling with passages of Scripture, and quoting Luther, Calvin, Jeremy Taylor, William Penn, Bishop White, Pliny's letter to Trajan, the Edict of Constantine, Barclay's Apology, and several other notable men and documents, he maintained that the running of the cars on Sunday was not in violation of existing statutes. After an exhaustive review of Sunday legislation, he concludes: "I place my opinion, therefore, of the entire legality of running passenger cars on Sunday on the same footing with

Sunday trains of steam railroads, as being clearly within the exceptions both of necessity and charity."[1]

Injunction having been refused, the opponents of Sunday travel did not avail themselves of the suggestion of the Court that the companies might be punished by fine under the act of 1794, and no further attempt was made to stop the cars. On November 9, 1867, the Union Company announced that under the decision of the Supreme Court the regular Sunday trips would be resumed. The other lines speedily followed the example of the Union Company, and thus the controversy was closed.

The Admission of Negroes to Street Cars.

While the citizens of Philadelphia were contending over the question of Sunday cars, another issue appeared which ranged the people of the city on new controversial lines in the street car arena. This was the question of the admission of the colored people to the street cars.[2]

From the outset the negroes had been excluded from the street cars, or, as a measure of grace, allowed to stand on the front platform. The legal right of the companies to exclude the colored people had been affirmed by the courts. In 1861 an action for damages was brought by a colored man against a conductor who had ejected him from a car, and the court had found for the defendant. In this case Judge Hare said: "In the belief, then, that the regulation (excluding negroes) now before us is a wise one, or, if not wise, will work its own cure best when least molested, we enter judgment for the defendant."[3]

[1] Sparhawk et al. vs. Union Passenger Railway Co., 54 Pa. State Reports, 401.

[2] For a Northern city, Philadelphia contained in 1860 a large negro population. The national census of that year shows that the colored people made up one seventy-seventh of the population of Boston, one sixty-third of the population of New York City, and one twenty-fourth of the population of Philadelphia.

[3] Goines vs. McCandless, 4 Philadelphia Reports, 255.

There seems to have been no general disposition to question the wisdom or justice of this decision until the persistent but unavailing arguments of the friends of legal equality for the negro were reinforced by the unanswerable logic of the Civil War. Then there was issued a call for a public meeting on January 13, 1865, to take measures to secure for the colored people the right to use the street cars. This call was signed by about seventy prominent citizens, among them Henry C. Carey, the eminent economist, Phillips Brooks, T. DeWitt Talmage, Jay Cooke, and other notable men of more strictly local reputation. At this meeting on January 13 an influential committee of thirty was appointed to secure the opening of the street cars to the colored people of Philadelphia. The sentiment of the meeting was expressed by a series of forcible resolutions asserting the right of the colored people to share the benefits of railway transportation.[1]

The committee appointed by this meeting addressed the presidents of the nineteen street railway companies, requesting them to rescind the regulation excluding colored people from the cars. The companies replied that they could not

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[1] "*Resolved,* That in the words of our venerable and respected townsman, whose name leads the call for this meeting, we are 'opposed to the exclusion of respectable persons from our passenger railway cars on the ground of complexion.'

Resolved, That we have heard with shame and sorrow the statements that decent women of color have been forced to walk long distances, or to accept standing positions on the front platforms of cars, exposed to the inclemency of the weather, while visiting, at our military hospitals, their relatives who have been wounded in the defense of their country.

Resolved, That we respectfully request the presidents and directors of our city passenger railways to withdraw from their list of regulations this rule of exclusion which deprives our people of color of their rights, and is in direct opposition to the recent decisions of our courts of justice.

Resolved, That in view of these recent decisions, the rights of our colored population in respect to the cars are without reserve; and to confine them to the use of special cars bearing aloft the degrading labels of caste, and running at long intervals, is a simple substitution of one act of injustice for another, and is as much in violation of their rights as the rule of total exclusion."

admit colored people in opposition to the wishes of their patrons, and offered the somewhat remarkable proposition that the matter be determined by a car vote of their patrons. The committee remonstrated in vain against the folly of this plan, and the car vote was taken on January 30 and 31, 1865. After two days of "tumultuous balloting," with the conductors as ballot receivers and judges, an overwhelming majority against admission was reported.

The Frankford and Southwark Company tried the experiment of admitting colored people for one month, and then abandoned the policy. The men employed in the Navy Yard and the women who were working there on government clothing were patrons of this line, and their strenuous opposition did much to defeat the experiment. On a few lines separate cars were run at long intervals for the accommodation of the colored people, but the results were not satisfactory to the companies nor to the colored population.

After their vain appeal to the railway companies the committee next turned to Mayor Henry, requesting him to prevent the police from assisting conductors in ejecting colored people. He declined to act, frankly stating his personal prejudice against riding with negroes.

A bill was, meantime, prepared and introduced in the General Assembly during the session of 1865, providing that railway companies should not be allowed to make color discriminations. It passed the Senate, but the House committee refused to report it.

While the committee working for the colored people had been engaged in trying to secure concessions from the railway companies and legislation from the General Assembly, they had also been active in an attempt to secure a judicial interpretation of existing law in favor of admission. They tried to prosecute criminally conductors who had ejected negroes from their cars, but although nine cases were brought to the attention of grand juries, these bodies refused to indict. The committee had more success with civil cases, and damages were secured in several instances.

The most notable was the case of a colored woman who was violently thrust from a car while on her way home late at night from her church, where she had been engaged in providing comforts for wounded soldiers. Judge Allison charged the jury that common carriers cannot make color discriminations, and a verdict was rendered under his instruction assessing damages at fifty dollars. In his charge he said: "The logic of events of the past four years has in many respects cleared our vision and corrected our judgment; and no proposition has been more clearly wrought out by them than that the men who have been deemed worthy to become the defenders of the country, to wear the uniform of the soldier of the United States, should not be denied the rights common to humanity."[1]

A decision of the Supreme Court was sought, since the companies did not change their regulations after the adverse decisions of the lower courts, but meantime the question had assumed a political aspect, and many of the very members of the General Assembly who refused in 1865 to report a bill for admission now became most zealous advocates of the rights of the colored people. The explanation of the sudden change of heart lies in the fact that the negro was thenceforward to be reckoned with as a political force, since he was to be armed with the ballot. So on March 22, 1867, an act was passed with little opposition admitting the colored people to the street cars on equal terms with their white neighbors.

The exclusion had been complete until the passage of the act, and the admission was attended by some rioting, but in a short time the patrons of the cars accepted their new fellow travellers with perfect good nature.

It is notable that the committee which conducted this admirable campaign for the recognition of the rights of the colored people received little support from the press and the pulpit. Of seven daily newspapers, only two, the *Press* and

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[1] Derry vs. Lowry, 6 Philadelphia Reports, 30.

the *Bulletin,* lent their aid to the movement in behalf of the negroes. But the silence of the pulpit is more noteworthy than that of the press. Most of the clergy ignored the question, although it was urged upon their attention while they were vigorously agitating against Sunday cars. Even when a brother minister, Rev. Mr. Allston, rector of St. Thomas Colored Episcopal Church, was forcibly expelled from a Lombard and South Streets car, the clergy uttered no protest. A pamphlet published in 1866 asserts that up to that time only three white clergymen had referred to the question in their pulpits.[1]

The committee that had done such excellent service in behalf of the colored people made a report in 1867,[2] which closes with the following survey of the situation immediately after the admission of the negroes to the cars: "The conduct of our colored friends in the use of their newly acquired right has been all but faultless. With an instinctive sense of propriety, which, it is feared, would be looked for in vain in any other race under like circumstances, they now enter the cars, not with an air of exultation at having gained a disputed point, but as if the point had never been disputed. It is also remarked that they resort to the cars sparingly, and, when not in clean clothes, voluntarily take their old places on the front platform. The most offensive occupants of seats—the drunken, the profane, the tobacco-chewing, the unwashed and selfish—are still of color other than black or brown. . . . Many men and women who, within the last few weeks, have found themselves seated for the first time beside decent and well-behaved colored people, and this without harm or annoyance from the so much dreaded contact, have also found stirring within their hearts, in consequence, a new influx of Christian charity."

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[1] Why Colored People in Phila. are excluded from Street Cars. 1866.

[2] Report of Committee appointed for the Purpose of Securing to Colored Persons in Philadelphia the Right to the Use of Street Cars.

CHAPTER III.

The Evolution of Monopoly in Street Railway Service.

Economic law in urban transportation was unconsciously defied by the General Assembly of Pennsylvania when the street railway system was established. The General Assembly said, "Let there be competition," where economic law says no real and permanent competition can exist. In the almost complete monopolization of her street car service, accomplished in the fall of 1895, Philadelphia has witnessed the vindication of the law that is above that of legislative assemblies.

Viewed from the standpoint of the evolution of monopoly, the history of the street railways of Philadelphia is most instructive and quite typical. In the beginning, street railway privileges were obtained by a large number of independent companies. During the period from 1857 to 1874 thirty-nine separate passenger railway companies were given charter right to operate street railways in the city of Philadelphia. Most of these companies constructed their lines, and for several years maintained an independent existence. The General Assembly defended the creation of this large number of railway corporations on the ground that the establishment of several independent lines would lead to healthful competition which would safeguard public interests. In several cases we find the following preamble in legislative grants: "Whereas, The interests of the public demand that no corporation should have the monopoly of carrying passengers over the streets of a city between points which require the advantages of competition," etc.

We note, however, that at the very beginning the companies found it advantageous to enter into alliance for the regulation of competition. This alliance took the

form of a Board of Presidents of City Passenger Railway Companies, which was organized May 24, 1859, ten separate companies being represented at the outset. As new companies went into operation their presidents were added to the Board. The Board remained in active existence until the formation of the Union Traction Company in 1895, when the unity of policy which it had been created to maintain, was assured by a more effective agency, a complete legal monopoly.

Meantime the Board had been a most important factor in railway management. The principal matters with which it dealt were the regulation of fares and the arrangement of transfers, and its control in these respects was most effective. Philadelphia never had a rate war on her street railways. With few and unimportant exceptions, the numerous companies maintained a uniform rate of fare throughout their entire history. Whenever the fare was raised or lowered the change was announced as the action of the Board of Presidents. It appears that no pretense was ever made of independent action in this important matter. There was, of course, no legal control exercised by this extra-legal body. The action was always represented as the result of unanimous agreement on the part of the presidents of the several roads. But that there was a hand of iron in the glove of velvet appears from the experience of the West Philadelphia Company when early in its history it undertook to sell twenty-five tickets for one dollar, while the fare on the other roads was five cents. The president of the road which thus cut rates was requested to withdraw from the Board, and was only admitted again to its privileges after the restoration of the standard rate and an ample apology.

The practical effect of the existence of such a body was early recognized, and when the fare was raised first from five to six cents and later from six to seven cents the public protested vigorously against "the illegal attempt to stifle that healthful competition which the General Assembly

intended to establish." The action of the Board was even denounced as conspiracy punishable under the common law.

It is thus apparent that the multiplicity of companies failed from the outset to secure that effective competition in price of service which was urged as the justification for the grant of the numerous franchises. The real result was the evil of a monopoly price without the advantage of the economy of operation which direct monopoly management would have made possible.

Within a few years after the inauguration of the street railway system, the natural economic law, which was to take nearly forty years to do its perfect work, began to make its influence felt, although the results in the beginning were not of great importance. The first instance of consolidation occurred in 1864, and during the next decade four companies were merged with stronger organizations and three were leased.

In 1876 the street railways of Philadelphia were in the hands of seventeen separate companies, operating their lines theoretically in entire independence, but in fact under the coöperative control of the Board of Railway Presidents. The total length of lines was about 289 miles. Of this mileage the largest amount owned by a single company was 41. The five companies possessing the longest lines were as follows:

Union	41	miles.
Second and Third Sts.	37	"
Germantown	31	"
Hestonville, Mantua & Fairmount	20	"
West Philadelphia	19	"

The total number of passengers carried was about 117,-000,000,[1] the largest number carried by any one company being 15,008,950. From the standpoint of the number of

[1] This was the year of the Centennial Exposition and the number of passengers for this year was consequently much larger than usual.

passengers carried, the five most important companies were:

West Philadelphia	15,008,950
Philadelphia City	13,736,705
Germantown	13,338,672
Union	11,392,326
Hestonville, Mantua & Fairmount...	9,634,689

Shortly after this, about 1880, the current began to set strong toward monopoly. In that year the Union Passenger Railway Company laid the foundation for the first extensive system of lines by its lease of the Continental Passenger Railway Company, which had, in 1879, effected a lease of the Seventeenth & Nineteenth Sts. Passenger Railway Company. A year later, in 1881, a second important system was created by the lease of two roads[1] by a hitherto unimportant company, the People's Passenger Railway Company, originally possessing but six miles of track. The figures for 1883 show that a single company, the Union, controlled 70 miles, and a second, the People's, 44 miles, out of a total mileage of 298. The Union Company carried 22,741,228 passengers, and the People's system 20,053,497, out of a total of about 110,000,000 carried by all the lines.

Thus far had consolidation of interests progressed when a new and important impulse to monopolization was given by the formation of the Philadelphia Traction Company, incorporated in 1883. This company was formed not with the intention of building a new street railway, but for the purpose of getting control of the existing railways by lease or purchase. Its projectors, Mr. P. A. B. Widener and Mr. W. L. Elkins, have since gained national reputation as street railway organizers, and the Widener-Elkins syndicate, as it is called, has controlled street railway systems in Chicago, New York, Pittsburg, and other large cities.

[1] Germantown Pass. Ry. Co. and Green & Coates Sts. Pass. Ry. Co.

These gentlemen and their associates appreciated the enormous profits which street railway enterprise could be made to yield, and planned a consolidation by lease of the original companies.

In fulfillment of its purpose, the Philadelphia Traction Company began at once to weld the railways of the city into a system far-reaching and powerful. In 1884 the Union system, already described, and another most important railway, the West Philadelphia, were leased. The Union Company controlled by lease the lines of the Continental Company, which in turn had leased, in 1879, the Seventeenth & Nineteenth Sts. road, the latter company owning one-half of the stock of the Empire Company; while the West Philadelphia Company held a lease of the Philadelphia City Railway, which at the time was operating the Philadelphia & Darby road. Thus the Philadelphia Traction Company, at the close of 1884, represented the consolidated interests of six of the original companies and held a half interest in a seventh. In 1885 it operated 116 miles of track out of a total mileage of about 320, and carried 42,039,344 passengers out of a total of about 117,170,000 carried by all the companies during that year. In other words, in 1885, the Traction Company controlled about 36 per cent. of the mileage of city railways and carried nearly 36 per cent. of all the passengers.

But the Philadelphia Traction Company was not satisfied with the powers that it possessed under the ordinary corporate organization, and so, using the potent political influence which it had acquired, it forced, in 1887, the passage of an act providing for the special incorporation of motor power companies and giving them large powers.[1] November 28, 1888, the Company was reorganized under this act, thus specifically acquiring the power "to invest its funds in the purchase of shares of stock and bonds of any corporation whose works, railway motors or other prop-

[1] Act of March 22, 1887.

erty are leased, operated or constructed by it," and "to lease the property and franchises of passenger railway companies which they may desire to operate, and to operate said railways." Under this form of incorporation the two traction companies which have recently united with the Philadelphia Traction Company to form the Union Traction Company were also organized.

The passage by the General Assembly of this act incorporating motor companies aroused intense popular opposition, and a great mass-meeting was held on March 1, 1887, to protest against its signature by the Governor, and incidentally to demand the reduction of fares from six cents to five cents. At that meeting Mr. Wayne MacVeagh made an interesting prophecy which was fulfilled eight years later. "You may rest assured your street railway system is destined very soon to be an absolute monopoly. You cannot stop it. Legislators cannot stop it. The only question remaining is whether the monopoly shall be owned by the Traction Company or the whole body of the good people of Philadelphia."

For six years after the formation of the Philadelphia Traction Company system there was little advance toward monopolization. Then, in 1890 and 1891, the Traction Company acquired two important lines, those of the Catherine and Bainbridge Sts. Company and the Philadelphia & Gray's Ferry Company. In 1892 the Traction system was practically completed by the lease of two more important roads, owned by the Ridge Avenue Company and the Thirteenth & Fifteenth Sts. Company.

The substitution of electric traction for horse power furnished an occasion for the consolidation of the independent lines which the Philadelphia Traction Company had not captured. In 1892 the Frankford & Southwark Company leased the lines of the Citizens Company. In 1893 it effected a consolidation with the Lombard & South Sts. Company and leased the road of the Second & Third Sts. Company. Then in the same year the Frankford & South-

wark system, thus created, was leased by a new corporation, the Electric Traction Company. The Electric Traction Company at once purchased a controlling interest in the Omnibus Company, General, which was chartered in 1889, and has the privilege of running omnibuses on any street in Philadelphia, although it has only operated a line on Broad Street. Thus there was formed a system next in importance to that of the Philadelphia Traction Company.

In 1893 the People's Traction Company was organized to operate the lines of the People's Passenger Railway Company,[1] which it proceeded to equip with electric motive power.

After the extensive consolidation movement of 1893 there was left unabsorbed only one original company, the Hestonville, Mantua & Fairmount Passenger Railway Company. All of the other companies had become part of one of three great systems, the Philadelphia Traction, the Electric Traction, and the People's Traction. The relative importance of these systems and the single independent company is represented in the following statement for the year ending June 30, 1895:

	Miles of Track.	Passengers Carried.	Total Receipts.
Philadelphia Traction Co. ...	203	111,475,982	$5,662,051
Electric Traction Co.	130	58,125,481	2,151,853
People's Traction Co.	73	44,927,760	1,678,087
H. M. & F. P. R. Co.	24	7,560,094	373,690

It was not difficult to foresee the next move. Three traction companies had consolidated the interests of the eighteen independent companies of twenty years before. The advantages of the consolidation that had been effected were evident to the managers, and the wastes of competitive operation of the three systems were apparent to the most casual observer. Three distinct trolley wires strung side by side over a bit of track used in common by all three traction companies furnished a hint of the waste which

[1] See p. 31.

was incident to separate plants for the generation of power. Three distinct sets of administrative officers, too many cars on certain lines, and various other extravagancies of competition obtruded themselves upon the managers and the public alike. The result was inevitable. It came quickly.

During the spring of 1895 the next and final step in consolidation was foreshadowed by the passage of three important acts[1] by the General Assembly. The first of these authorized traction companies to enter into contract with each other for the sale, lease or operation of their respective property and franchises. The second authorized passenger railway companies to sell or lease all or any part of their property and franchises to traction companies and make contracts with traction companies for the operation of their lines. This act was designed to remove all doubt which had arisen regarding the legality of the leases and sales of franchise privileges of passenger railway companies to traction companies, which had already taken place in numerous instances. The third act authorized traction or railway companies owning, leasing, controlling or operating different lines to operate the lines as a general system and to lay out new routes over the streets occupied.

The expected happened very promptly. On July 22, 1895, a preliminary conference was held at which a plan of consolidation of the Philadelphia companies was discussed, and on September 6 the Union Traction Company was chartered with an authorized capital of $30,000,000. The stock of the Electric Traction Company and the People's Traction Company was bought by the new corporation, and the system of the Philadelphia Traction was leased.[2] July 1, 1896, the Electric Traction and the People's Traction were also leased by the Union Traction in order that the Union Company might acquire the direct management of

[1] Acts of May 15, 1895.

[2] For terms of purchase and lease see pp. 45 and 46.

all the lines. Thus the Union Traction Company came into control of the entire street railway system of Philadelphia with the exception of one line with twenty-four miles of track, owned and operated by a company incorporated in 1859, the Hestonville, Mantua & Fairmount Passenger Railway Co.

Thus was the doctrine of natural monopoly vindicated in Philadelphia.

CHAPTER IV.

Financial Aspects.

A thoroughly satisfactory treatment of the financial results of the Philadelphia street railway system is impossible at the present time, because many of the facts essential for a complete presentation of the subject cannot be obtained. The managers of the railways publish very meagre financial statements, and the public has never effectively demanded full reports. Pennsylvania has no Board of Railroad Commissioners to supervise the railways and publish their accounts. The companies are obliged to make annually to the Auditor-General of the State sworn reports, on the basis of which the State taxation on capital stock and gross receipts is levied, but these statements are withheld from the public on the ground that they are confidential. The Secretary of Internal Affairs publishes a report on railroads which purports to give the facts regarding stock, debt, cost of equipment, gross receipts, operating expenses, dividend payments and other matters of importance, but the statements are made in the form of incomplete and confused summaries that are of little value. The investigator who attempts to work from the statements of the Secretary of Internal Affairs speedily arrives at the conclusion of the street railway expert who condemns the railway reports of Pennsylvania as "in the highest degree chaotic, inconsistent and misleading."

The history of the publication of financial statements of street railways in Pennsylvania is interesting and significant. At the beginning of the development of the system, detailed sworn statements of all the facts of interest in connection with the equipment and operation of the railways were published annually by the Auditor-General. The earlier reports show some important omissions on the part of a few of the

railway companies, which are frankly indicated, but on the whole the facts are given with satisfactory fullness of detail.

In 1874 the published statements of the railways were transferred from the reports of the Auditor-General to those of the Secretary of Internal Affairs, but until 1883 the character of the reports did not suffer from the transfer. Then in 1883, the Secretary, Mr. J. Simpson Africa, says in the introduction to his report that the public will be surprised to find the volume on railroads and street railways issued by his department less complete and less satisfactory than usual. In explanation he calls attention to the law of June 4, 1883, which required that the number of copies of the report of the department be limited to 2500, and that the maximum number of pages be 500. The reason for the passage of this act, which made it impossible to adequately present facts of interest and importance to the public, does not appear in the statute.

Immediately after this the published reports of the Philadelphia companies became valueless. Not only was the form of the report meagre, but in many cases there was no pretense of reporting the few facts required by the form. A star in a blank space in the summaries simply referred the investigator to a foot-note—"Not reported."

It is not without significance that this change in the form of the report was coincident with the organization of the Philadelphia Traction Company, which was chartered for the purpose of acquiring by purchase and lease the lines of several of the original passenger railway companies. A very slight knowledge of the brilliant financial operations of that period makes it clear that the change in the method of reporting which the State officials made at that time must have been most convenient and agreeable to the organizers of the new system. It would have greatly embarrassed some of the cleverest operations of street railway financiering in Philadelphia if the public had been in possession of all the facts.

In recent years the official reports have improved some-

what, but they are still very unsatisfactory.[1] However, within the past few years the extraordinary interest of investors and public alike in street railway properties, due largely to the revolution in service resulting from the application of electricity to traction, with its consequent enormous expansion of street railway investments, has furnished a motive for careful investigation of the real return to such enterprises.[2] In Philadelphia the task of investigation has been exceedingly difficult, owing to the complicated stock, bond and lease operations extending over many years, the terms of which have been carefully concealed from the public. But enough is now known to make possible somewhat close approximations to the financial results of the Philadelphia railways.

From the very beginning Philadelphia street railway stock has been most remunerative property. In 1859 there was published a "Treatise on Street or Horse-power Railways,"[3] in the preface of which the author says: "The following, I hope, will be the means of inciting investigation to a system which, although now in its infancy, is rapidly providing a secure and profitable investment for a large amount of

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[1] The experience of the Pennsylvania public in failing to obtain information regarding the financial condition of its street railways is not unique. Very few of the States have published satisfactory reports of the railway systems of their cities. The failure of the public to demand vitally important information which they have the undoubted right to exact is a striking illustration of that characteristic American apathy which is largely responsible for corporate aggression on public rights. However, there has been improvement in this respect recently, and several States are beginning to furnish reasonably complete reports. The Massachusetts reports are the best, the Railroad Commissioners of that State prescribing the form of accounting for the railways, thus preventing the companies from concealing their real condition by bookkeeping expedients. The New York reports are also excellent, the form of accounting being carefully controlled.

[2] A recent estimate places the total capitalization of street railways in the United States at $1,375,300,000; of this amount, $784,800,000 is capital stock and $590,500,000 indebtedness.

[3] Easton—A Practical Treatise on Street or Horse-Power Railways. Phila., 1859.

capital." He proceeds to show that the net profit for one year on $5,044,520 invested in four railways in New York City and four in Boston was $638,911, or 12.4 per cent., and then says: "No returns have yet been made of the operations of the many railways laid down in Philadelphia, but from actual observation it is calculated that the aggregate of their incomes will, in proportion to the amount invested, far exceed that of Boston and New York." He cites the fact that the stockholders of the Philadelphia and Darby Passenger Railway Company had already declined to entertain a proposal to lease their road for five years for a net return of 8 per cent. on their investment; and says that the Citizens Passenger Railway Company, "which was considered the most desperate of all undertakings," declared a dividend of 8.5 per cent. in five months.

Among the large numbers of companies chartered at the outset when "passenger railway insanity" held sway among the investors, there were a few that were not profitable, but most of the railways made ample return to the stockholders from the moment that they were put into operation, and several began to make very large profits at once. The following table shows the paid-in capital and dividend payment for the five most profitable companies and for all companies, for the year ending November 30, 1864.

	Paid-in Capital Stock.	Dividend.	Per cent. of Dividend on Paid-in Capital Stock.
Philadelphia City	$ 100,000	45,000	45.0
Second & Third Sts. .	203,757	56,990	27.9
Citizens	192,750	41,825	21.7
Green & Coates	150,000	31,084	20.7
Girard College	160,000	20,000	12.5
All companies	3,127,694	310,467	9.9

Thus soon after the system was fairly in operation, four companies paid over 20 per cent. dividends and the average return on the investment in all companies was about 10 per cent. As the city developed and the traffic grew, the dividend return increased rapidly.

The financial development of the railways is exhibited by the following table, which presents the most important facts

regarding the entire Philadelphia system for the years indicated. The figures are taken from the reports of the Auditor-General and the Secretary of Internal Affairs for the earlier years, and from a variety of available sources, official and private, for the later years. The table is not entirely accurate, since the information on which it is based is not complete, but it indicates in a general way the development of the system on its financial side.

Year.	Miles of Track.	Passengers.	Paid-in Capital Stock.	Total Debt.	Cost of Construction and Equipment.	Cash Dividend	Percentage of Dividend on paid-in Capital Stock.
1864	129	44,624,710	$3,127,694	$1,407,195	$4,286,680	$310,467	9.9%
1869	177	56,804,392	4,326,239	1,311,634	5,911,074	456,114	10.5%
1874	230	78,489,131	5,326,998	2,167,393	7,899,737	960,444	18.0%
1880	298	99,045,515	6,468,459	3,049,935	9,758,455	1,181,100	18.2%
1885	319	117,171,681	10,388,096	4,062,058	*	1,823,885	17.5%
1890	345	164,542,586	12,832,036	6,491,636	*	2,243,401	17.5%
1895	436	224,238,116	40,654,838[1]	7,322,635	25,730,981	3,249,440	8.0%

* Official figures so incomplete that no estimate is possible.

Until 1884 the Philadelphia railway properties had been directly controlled by a large number of comparatively small stockholders, the stock being widely scattered in small blocks throughout the community. But in 1884 a new era in the financial history of Philadelphia railways was inaugurated by the Philadelphia Traction Company, which entered the field as an operating company for existing railways. It at once assumed the operation under lease of two important systems, paying all fixed charges and guaranteeing large dividends. Later, when the change in motive power from horses to electricity was accomplished, the Philadelphia

[1] Does not include Union Traction stock. The large increase from 1890 is explained by the heavy issues of the traction companies and by the reconstruction for electric motive power.

Traction Company and two new traction companies chartered in 1893 extended the policy of acquiring the operation of lines by leasing the original companies under guaranteed dividend, until by 1895 all but one of the railway companies had been attached to one of the three large traction systems.

The very large profit on actual investment in Philadelphia railways is registered in the price which these operating companies pay for the privilege of exercising the franchises of the original companies. The following table shows the net return which the present stockholders of the original railway companies are receiving on paid-in capital stock under guarantee of the operating traction companies.

The lease terms of the principal lines of the Philadelphia Traction system provide for net return on paid-in capital stock as follows:

Name of Company.	Annual Dividend on paid-in Capital Stock.
Continental	20.7%
Philadelphia City	31.5
Philadelphia & Gray's Ferry	16.0
Ridge Avenue	42.8
Thirteenth & Fifteenth Sts.	65.6[1]
Union	31.6
West Philadelphia	20.0

The dividend charges of the Electric Traction Company are as follows:

Frankford & Southwark	27%[2]
Citizens	67[3]
Second & Third Sts.	25[4]

The People's Traction Company has pledged the following dividends on paid-in capital stock:

Germantown	24%
Green & Coates Sts.	40

[1] To be increased to 71.6% after 1900.

[2] To be increased to 36% by 1903.

[3] To be increased to 72% after 1899.

[4] To be increased to 30% by 1903.

The January, 1897, quotations of stock of the companies just considered and of the two traction companies, the stock of which is on the market, are as follows:

Name of Company.	Par Value.	Amount paid in per Share.	Market Price.
Continental	50	29	131
Philadelphia City	50	23.75	172
Philadelphia & Gray's Ferry.	50	25	82½
Ridge Avenue	50	28	244
Thirteenth & Fifteenth Sts.	50	16.75	227½
Union Passenger Railway	50	30	210
West Philadelphia	50	50	219
Frankford & Southwark	50	50	334
Citizens	50	19.40 (average)[1]	272
Second & Third Sts.	50	40	237
Germantown	50	21.66 (average)[2]	125
Green & Coates Sts.	50	15	132¼
Philadelphia Traction	50	50	69⅝
Union Traction	50	10	9½

The present market value of the stocks of all the street railway companies of Philadelphia exceeds $120,000,000; the amount of paid capital stock, including that of the traction companies, being in the vicinity of $50,000,000; while the total cost of the construction and equipment of the roads which the stocks represent is about $36,000,000.

An analysis of the obligations assumed by the Union Traction Company through its purchase of the stock of the People's Traction Company throws some light upon the process of inflation of values in street railway stocks. Fifteen years ago the People's Passenger Railway Company built up an extensive system of railways by the lease of the Germantown Company at 26 per cent. annual rental on paid-in capital, and a lease of the Green & Coates Sts. Company at an annual rental of 40 per cent. on paid-in capital. Burdened by these enormous lease charges, the stock of the People's Passenger Railway Company, with $11.30 per share paid in, was sold in 1893 to the People's Traction Company at $75 per share. Now the People's Traction Com-

[1] 8500 shares of $20 paid, and 1500 shares of $16 paid.

[2] 10,000 shares of $35 paid, and 20,000 shares of $15 paid.

pany has sold its stock in turn to the Union Traction Company for $76 per share, $30 having been paid per share. In other words, the Union Traction Company has paid $76 per share for stock which represents an actual investment of $30, in order to obtain from the People's Traction Company the privilege of operating the People's Passenger Railway Company under the condition of 4 per cent. interest on $75 for every $11.30 which was actually invested in the railway, and in addition paying dividends of 40 per cent. and 26 per cent. respectively on the investment in two leased roads. By these transactions the Union Traction has undertaken to pay interest on a capitalization of about $21,000,000 for the right to operate a railway system which has cost for construction and equipment $6,830,425.

The foregoing consideration, in connection with the facts regarding guaranteed dividends and market price of stocks already quoted, indicate how excessive are the profits derived by the stockholders of the original companies and how heavy is the burden of fixed charges carried by the present operating companies. The railway companies holding perpetual franchises, which are constantly becoming more valuable through the growth of the city, were in a position to exact from the traction companies a large payment for franchise rights. In cities more wise or more fortunate than Philadelphia, where franchises are not granted in perpetuity, but are limited to twenty or thirty-year periods, such excessive profits as those now paid by the traction companies on the stock of the original companies flow into the city treasury or are distributed in the form of lower fares.

The present value of the franchise privileges given by the city to its railways, as estimated by the able financiers who effected the recent consolidation, is of much interest to the public and is easily ascertained. The Union Traction Company reports an annual expenditure of about $5,463,000 as fixed charges. These fixed charges are made up of two elements. The first is the payment for the use of existing

railways and equipment, and the second is the amount exacted by the stockholders of the constituent companies as payment for the franchise privileges bestowed upon them by the city. The amount of the first element in the fixed charges is readily calculated. The companies report the cost of construction and equipment of the railway system as $34,156,000, which is apparently an outside estimate. The interest at 5 per cent. on this cost is $1,707,800, which may be taken as a fair return on the capital actually invested in the roads. The second element in the fixed charges must then amount to $3,755,000, and this sum thus represents the annual payment guaranteed by the Union Traction Company for the simple right to use the locations granted to the original companies by the city of Philadelphia. This payment is an interest charge of 5 per cent. on $75,100,000, and this amount is consequently the present approximate value of the gift to the city to its railway companies. In return for these exclusive privileges, which are valued by the company at $75,000,000, the city and the State receive in taxation $1,163,000 annually.

The existing combination of street railway lines, the Union Traction Company, dates from the fall of 1895. At the time of consolidation there were in existence three great traction companies, which were controlling and operating all the original railway companies save one. These were the Philadelphia Traction Company, first organized in 1883 and rechartered in 1888; the People's Traction Company, incorporated in March, 1893; and the Electric Traction Company, incorporated in May, 1893.

The Union Traction Company was organized with a capital of $30,000,000 in $50 shares. The plan of organization provided for the purchase of the stock of the Electric Traction Company at $85 per share for the full-paid $50 shares and $70 per share for the shares on which $30 had been paid; and also for the purchase of the People's Traction Company stock, $30 paid, at $76 per share. These shares were paid for with 4 per cent. collateral trust gold certifi-

cates, not redeemable before 1945. In addition, the Union Company leased all rights, property and franchises of the Philadelphia Traction Company for 999 years at a net rental of 8 per cent. on capital stock. Finally, on July 1, 1896, the Union Traction Company leased the lines of the People's and Electric Companies, whose stock it held in trust, in order to assume directly the operation of the roads, the consideration being the amount of the interest on the Electric and People's Trust Certificates.

By the terms of the agreement the shareholders of the three constituent traction companies had the right to purchase the stock of the Union Traction Company in proportion to their several holdings. The speculative value of this right appears from the fact that immediately after the Union Traction Company completed its purchase and lease the stock was quoted at $14 per share, $5 being paid-in value.[1]

The present earning capacity of the railways now consolidated by the Union Traction Company is shown by the following table, which gives the figures for the year ending June 30, 1896. The figures quoted cover companies which operate nearly 95 per cent. of the railway mileage of Philadelphia.

Companies.	Gross Earnings.	Operating Expenses.	Net Earnings.	Cost of Road and Equipment.
Electric Traction,	$2,496,164	$1,270,208	$1,225,956	$7,787,713
People's Traction,	2,035,082	1,084,892	950,190	6,830,425
Phila. Traction,	5,678,780	3,007,926	2,670,854	19,538,378
	$10,210,026	$5,363,026	$4,847,000	$34,156,516

A glance at these figures shows that the present earning power of the Philadelphia companies is large. With the longest lines of any surface system in the country, the gross receipts per mile of track are above $24,000. This return on the basis of track mileage is exceeded by only four of

[1] The stock has since declined to 9⅞ on paid-in value of $10.

the seventeen surface systems of this country which operate 100 miles or more of track.[1]

But even with this large earning capacity, the present organization of the railways is maintained with difficulty, because of the heavy over-capitalization of the system. The capitalization of the Union Traction Company and constituent companies is estimated as follows:[2]

Constituent Companies:		
Capital stock	$57,891,200	
Funded debt	11,675,600	
Union Traction Co.:		
Capital stock	30,000,000	
Collateral Trust 4s.	29,735,000	
		$129,301,800
Less stock in trust		21,000,000
Total net capitalization		$108,301,800

Thus the 447 miles of track of the Union Traction Company are capitalized at $242,280 per mile.[3] The cost of con-

[1]

Companies.	Miles Track.	Total Receipts.	Per Mile Track.
Metropolitan Co., N. Y.	189	$9,131,000	$48,200
West End Co., Boston	263	7,746,171	29,400
North Chicago Co., Chicago	100	2,780,487	27,805
Chicago City Co., Chicago	162	4,476,824	27,500
Union Traction Co., Phila.	420	10,210,026	24,300

The figures for the Metropolitan and Union companies are for the year ending June 30, 1896; for the two Chicago companies for the year ending December 31, 1895; and for the Boston company for the year ending June 30, 1895. These comparative figures are taken from an article by Mr. Edward E. Higgins, in the Street Railway Journal of October, 1896.

[2] This is the estimate of L. H. Taylor & Co., bankers, in a circular issued August 10, 1895, urging the ratification of the proposed consolidation. The figures have been endorsed by representatives of the company as substantially correct.

[3] Excessive as is this capitalization per mile of track, it is exceeded by that of three surface railways in the United States, the figures being as follows:

Companies.	Miles of Track.	Total Capitalization.	Capitalization per Mile.
Third Ave. Co., N. Y.	28	$14,000,000	$493,000
Capital Traction Co., Wash., D. C.	36	12,000,000	333,300
Metropolitan Co., N. Y.	189	54,884,000	280,900
Union Co., Phila.	447	108,301,800	242,200

struction and equipment, including paving of the streets occupied by the tracks, as reported by the companies, is $76,400 per mile of track.[1] The lines are thus capitalized at more than three times their reported cost of construction and equipment.

It is clear that a system thus over-capitalized and burdened with the lease charges quoted must be managed with consummate skill in order to make a profit for the operating company. The gross receipts of the system for the year ending June 30, 1896, were $10,210,026. The fixed charges representing rental of roads and interest on indebtedness were $5,463,051, while taxes and licenses are estimated at $800,000 per annum. Thus according to the statement of the Company in its annual report, the payment of fixed charges and taxes would leave only about 40 per cent. of the gross receipts for operating expenses, while the report of the Company for nine months ending June 30, 1896, shows that the operating expenses were 52¾, 53⅓, and 56¼ per cent. of the total receipts respectively for the three traction systems.

In the absence of detailed information as to the resources of the Company and the exact basis upon which the figures presented are calculated, it is impossible to predict the outcome, but it is beyond question that the managers of the Union Traction Company are facing a very serious financial

The important systems in United States and Canada having the smallest capitalization per mile of track are as follows:

Companies.	Miles of Track.	Total Capitalization.	Capitalization per Mile.
Montreal Ry. Co.	75	$ 5,000,000	$66,500
Louisville Ry. Co.	150	12,000,000	80,000
Buffalo Ry. Co.	142	12,507,000	84,700
Lindell Ry. Co., St. Louis .	60	5,400,000	89,800
West End Co., Boston	263	23,705,000	90,000

[1] For purposes of comparison with cost of construction and equipment of other systems the special paving charge estimated at $9,000,000 should be deducted. This makes the cost of the roads and equipment about $56,300 per mile. The cost of construction and equipment of Massachusetts street railways, as reported in 1895, varied from $11,737 to $97,904 per mile, averaging $48,729 per mile of main track.

problem. President Welsh reported that the first nine months of operation of the present system ending June 30, 1896, showed a loss of $1,045,246, but that accrued dividends on stock owned by the Company made the net deficit only $49,293. It is not known on what basis the accrued dividends were calculated. The president of the Company in his first annual report gives the stockholders no definite assurance for the future, simply saying: "It is unnecessary to remind stockholders that the conditions have not been favorable for business during the period under review, owing to the great depression which has existed in most branches of trade and other well-known causes."

The present financial organization of the Union Traction Company is apparently justified only by faith in large expansion of traffic in the near future. The fixed charges representing payment to the original companies for franchise privileges increase slightly during the next few years, but after 1903 there will be no increase in this item of expense. Meantime the gross receipts will become progressively larger as the city grows, and thus a balance may be expected to appear on the right side of the ledger. The managers of the Company have discounted this future increase of net revenue in the present financial arrangement, and are doubtless struggling with the present deficit sustained by hope of future profit if the organization can meantime be maintained.

The financial aspect of street railway service which most interests the general public is the rate of fare.[1] In the

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[1] The railway companies of Philadelphia began in 1858 with a five cent fare. The usual omnibus rate had been six cents, and the railways promised a reduction, urging this as one reason for establishing the new system of transportation. At first, exchange tickets were sold for six cents, but in 1860 the exchange rate was made seven cents by the Board of Railway Presidents.

Although there were many attempts to change the rate, the single fare remained at five cents until 1864, when it was increased to six cents. The reason given for the increase was the "high price of horse feed."

Shortly after this the single fare was increased to seven cents,

attempt to increase the gross earnings of the system, the Union Traction Company adopted a new policy with reference to fares as soon as it assumed control. Philadelphia is a city of right angles, and most of the lines had run directly east and west or north and south. Thus the proportion of riders who were obliged to change from one line to another to reach their destination was very large. Each of the three traction systems before the consolidation gave transfer privileges very freely for a single five cent fare, the newer companies, the People's Traction and the Electric Traction, being especially liberal in this regard. There were about 350 transfer points in the city, and it is estimated that about 40 per cent. of the patrons of the cars called for passes. One of the first moves of the Union Traction Company was the abolition of free transfers and the establishment of a universal eight-cent exchange rate.

The change in the customary rate of fare for a large proportion of the patrons naturally met with vigorous protest on the part of the public and gave rise to a movement to secure a general free transfer system or to force a reduction of the single fare to four, or even three, cents if possible. The popular feeling is reflected by the grand jury for November, 1895, which presented the consolidation of the companies and the consequent abolition of free transfers as a public evil, and urged that the legality of the combination be tested. No concessions in the way of lower fare or free transfers were made by the Company, however, and it seems probable from the foregoing review of financial conditions

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16 tickets being offered for one dollar, and exchange tickets for nine cents each. These rates were maintained for about twelve years, and then, in January, 1877, the fare was reduced to six cents, the price of exchange tickets remaining nine cents.

Four years later, in 1881, the general demand for cheaper transportation induced Councils to attach to a grant of extension privileges, requested by the Lombard and South Sts. Co., the condition of a five cent fare. As other companies applied for privileges Councils took similar action in many cases, and later the General Assembly made the five cent rate a condition of using cable traction. Thus by means of the pressure brought to bear by the public a uniform five cent rate was attained in 1887.

that no important concessions can be made in the immediate future without destroying the basis of the present organization.[1]

It is not without significance in this connection that the stock of the railway companies and the trust certificates which were issued in payment for the stock of the People's and Electric Companies purchased by the Union Company are quite widely distributed throughout the community in small blocks. Recent transactions indicate clearly that it is the policy of the managers of the Union Company to get its securities into the hands of a large number of small holders, the plain inference being that the officials feel that a wide distribution of securities will fortify the Company against possible attack by the public. The man who holds the stocks or bonds of the companies is naturally a defender of the present organization, and in the event of a contest a large body of security holders would be a source of great strength to the Company. In the recent struggle over the question of fares the "thousands of frugal and comparatively poor people who have their savings invested in the shares of these corporations" were made to play an important role in the defense of the Company. A prominent director said in a newspaper interview, "Our critics have engaged the Academy of Music and wish to call an assemblage of people opposed to street railways as now managed. It would take eight Academies of Music to hold the stockholders of the Union Traction Company, whose interests to-day are being assailed by wanton attacks upon the most commendable business enterprise that I know of in this country. . . . There are about twenty-five thousand of them."[2] The value to the Company of the conservative

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[1] When the free transfer system was abolished the Company promised to rearrange its routes and establish several L lines, thus reducing the necessary number of transfers. This promise has been fulfilled and it is now possible to reach the business center of the city from every section of Philadelphia for a single fare. The lines have also been so arranged that Fairmount Park can be reached from most sections for five cents.

[2] Mr. Thomas Dolan in *Philadelphia Times*, Nov. 29, 1895.

force of the large body of citizens financially interested in the maintenance of the present organization will be readily appreciated.

Meantime, realizing the very large return which the present rate of fare yields on the legitimate investment in the railways, and noting the tendency towards decrease of fare in other cities, the public feels that its present cost of transportation service is excessive, and many are anxious to test the reserved right of purchase or the power of Councils to force a reduction of fare. Manifestly only the wisest management can meet successfully the varied and exacting demands of public and stockholders.

CHAPTER V.

THE PRICE OF FRANCHISE PRIVILEGES.

Having reviewed the facts showing the return which the street railways have made to investors, we are prepared to consider the price which they have paid to the city for their franchise privileges.

In order to secure for the city some remuneration for the privilege of constructing and operating street railways in Philadelphia, three obligations were imposed upon the companies by charter and ordinance. These obligations are (1) to "pave, repave and repair" the streets which they occupy; (2) to pay to the city a tax on annual dividends in excess of 6 per cent.,[1] and (3) to pay a license fee for each car "intended to be run."

Unfortunately, from 1857 to 1874, each company was chartered by special act of the General Assembly, and the thirty-nine charters granted during this period differ widely in the form of obligation imposed. In 1873 the State Constitution was revised and a clause inserted forbidding special or local legislation. A general incorporation act was accordingly passed, April 29, 1874, and an act providing for the incorporation of passenger railway companies was placed on the statute books, May 14, 1889. However, most of the available territory had been granted during the era of special legislation, so all the important companies of the present day are operating under special charters.

The different terms of the charters prior to 1874 made it difficult for the city to define and enforce the financial obligations of the companies to the city, and were fruitful sources of vexatious legislation. The complications thus

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[1] Imposed on fifteen of the eighteen companies in independent existence in 1874. None of the companies chartered since 1874 are liable to this dividend tax.

arising make it necessary to examine each one of the obligations separately and in some detail.

I. *The Paving Obligation.*—The most important return which the companies have made to the city for their privileges has been the paving and maintenance of all streets occupied by their tracks. Every company but one[1] assumed this obligation to pave and repave or to repair the streets, or both.

The charter provisions on this subject vary quite widely. Some expressly provide that "said company shall pave and keep in good repair such portion of the street as may be occupied by said railway." Another form runs, "Provided it shall keep the streets, through which said railway passes, so far as said railway shall run along said street, in perpetual good repair at the proper expense of said company." Another common form is less definite, merely declaring, "Said Councils may by ordinances establish such regulations in regard to said railway as may be required for paving, repaving, grading, culverting of and laying gas and water pipes in and along such streets." Some of the charters made no reference to the care of the streets.

Ordinance provisions, however, made the paving obligation definite and in connection with charter provisions imposed upon all but five of the companies the duty of paving, repaving and repairing streets which they occupy.[2] In most cases, the consent of Councils was required by charter before the lines could be built, and the companies that asked consent of the local legislature were obliged to file a written agreement to accept and observe the ordinance of 1857, which contained the paving requirement, and all other ordinances to be made by Councils for their control.

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[1] Phila. and Darby Co.

[2] In October, 1896, the Supreme Court decided that under their charter provisions the obligation of the Hestonville, Mantua and Fairmount Co., the Empire Co., the Continental Co., and the Seventeenth and Nineteenth Sts. Co. is simply to repair and not to repave streets.

In other cases the charters required that the companies should be subject to all ordinances providing for their regulation, thus bringing them under the paving provision.

The section of the ordinance of 1857 which deals with the subject of paving is as follows: "All railroad companies, as aforesaid, shall be at the entire cost and expense of maintaining, paving, repairing and repaving that may be necessary upon any road, street, avenue or alley occupied by them." This provision was amended in 1859 in such a way as to relieve the companies from the duty of paving streets which were not paved at the time the tracks were laid.

The expression of the obligation is thus perfectly definite, but in spite of this fact the city has had great difficulty in forcing the companies to fulfill their contracts.

As late as 1887, thirty years after the passage of the ordinance and its acceptance by the earlier companies, we learn from a message of Mayor Fitler to Councils that the question of the responsibility of the city passenger railway companies to repave the streets with such pavement as modern necessities demand is still pending in the courts; that meantime the citizens are suffering, and consequently he proposes to lay before Councils a compromise plan for repaving under which the city and the companies shall share the burden. And it was four years later, in 1891, that the question of the enforcement of the contract obligations of the companies as to paving was definitely decided in favor of the city.

Until 1892, when, under conditions to be described later, improved pavement was laid on an extensive scale, Philadelphia was generally known as the worst paved city in America. The pavements were of roughest cobble stone, badly laid and sadly neglected. A partial explanation of this state of affairs is found in the history of the manner in which the railway companies discharged their paving obligations.

One of the first official references to the paving contract

is that of Mayor Henry in a message to Councils in January, 1859. He said, "There should be no unnecessary delay in the adoption of an ordinance which shall clearly define the obligations of the several companies to keep in constant repair the entire width of the streets occupied by them." The companies were already attempting to evade the terms of their contract by a claim that the proper interpretation of the charter and ordinance provisions required them to pave and maintain only that portion of the street actually occupied and used by them, viz., the space between the tracks.

In response to the Mayor's recommendation, Councils enacted the passenger railway ordinance of 1859, amending the original ordinance of 1857, and, among other changes, providing that the companies must repave or repair any street occupied by them on notice from the Chief Commissioner of Highways. In the event of failure on the part of the companies to comply with the request, the Chief Commissioner is authorized to do the work himself and place a bill for the amount expended in the hands of the City Solicitor for collection. After the passage of this ordinance we find in the finance reports of the city under the expenditure of the Department of Highways an item, "For repairing and repaving streets in which passenger railways are laid." The amounts annually placed opposite this item vary from a few dollars to a maximum of $247,481.75 in 1890. Up to 1889 the largest annual expenditure for this purpose was $9,060.07 in 1873, and the total amount was not large. But from 1889 to 1894 inclusive, the amount expended by the city on streets, which should have been cared for by the passenger railway companies, was $461,-086. As we shall see later,[1] the city has recently recovered the larger part of the amount expended on streets occupied by the railways.

In 1865 we have in a message of the Mayor a revelation as to the spirit in which the companies were performing

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[1] See p. 61.

their paving obligations. In April, 1865, Mayor Henry says: "The occupancy of many of the principal streets by passenger railway companies has devolved by ordinance the repair of their entire roadway upon the respective companies. The result of such an arrangement, as could have been anticipated, has been the prevalent neglect of the street pavement except within or immediately adjacent to the rails." It does not apparently occur to the Mayor that it is possible to enforce the contract obligations of the companies, for he proposes that the city resume control of all paving and charge the companies a "due proportion of expense."

The references to the bad condition of the streets are numerous in the messages of the various mayors. Meantime we note frequent ordinances instructing the companies to repave certain specified streets. There are also several directing the Chief Commissioner of Highways to do work which the companies have refused to do and to put in the hands of the Solicitor for collection, claims against the companies for the amounts expended.

Occasionally Councils reflect a popular agitation for better paved streets, and attempt radical reform. Thus, for instance, we find on March 7, 1874, an ordinance instructing the Chief Commissioner of Highways to notify all city passenger railway companies to repair highways which they occupy and to report the result in May. Councils did not rest content with this, for on March 23, 1874, the City Solicitor is directed to notify the presidents and directors of all companies that within ten days of the receipt of notice they must repair streets along their respective routes, and the Solicitor is further directed to prosecute officers who refuse to act. A somewhat similar ordinance was passed in 1876, Councils evidently desiring to have Philadelphia make a good impression on the numerous visitors of the Centennial Exposition. The last ordinance was evidently effective, for the report of the Department of Highways for 1876 speaks with approval of the large amount of work done by the companies during that year.

This activity of the companies was coincident with an important legal definition of their obligations. Acting under the ordinance referred to above, the Chief Commissioner of Highways had poled off a portion of a street and proceeded to repair it, meantime stopping the cars. The company asked for an injunction against the action of the Commissioner of Highways. In delivering the opinion of the Court dismissing the application for an injunction, President Judge Thayer laid down some most important principles.[1] In view of the later attitude of the companies, this judicial assertion of the right of the city is worthy of extended quotation even in a brief treatment of the subject. After a statement of charter and ordinance provisions, Judge Thayer said: "This review of the legislation of the State and of the City, in its bearing upon the relative rights and obligations of this railway Company and the City, results in several clear and indubitable conclusions:

First. That this Company are bound to keep in repair the entire roadway of the streets which they occupy—not only the part between the rails, but the whole roadway, from curb to curb. . . . Whatever streets they traverse they are bound to pave throughout their whole route, and that not partially, but wholly and thoroughly. . . . It is a part of the price which the Legislature exacted for the privileges granted. And the privileges, I may add, were cheaply purchased at the price imposed. . . .

Second. Another conclusion deducible from the legislation in reference to this Company is, that they are not only bound by the ordinance of 1857, but also by all other ordinances passed by the city. They are not only bound by the express words of their charter to obey the ordinance of 1857, but it results from their charter also, and from their own solemn agreement, made with the city in pursuance of it, that they are equally bound by all other ordinances passed, or to be passed, so always, of course, that they be

[1] Phila. and Gray's Ferry Pass. Ry. Co. vs. Phila., 11 Phila. Reports, 358.

reasonable and lawful in their nature. The privileges of this Company were, by the very fiat of its creation, to depend upon the will of the city. It could slay or it could make alive. It was armed with power to strangle it at its birth, or to nurse it into useful strength and vigor. This power was given to the city for a salutary purpose; for a public and beneficial purpose. That purpose was to subordinate the corporate existence of the Company to the laws of the community in which it was to live—to protect the municipal rights and liberties of the City of Philadelphia. The stockholders of the Company unanimously voted that they were willing to be so bound. They entered into a solemn contract with the city, under their corporate seal, and the hands of their chief officers, binding themselves to be subject to all ordinances of the city, passed or to be passed. They now attempt to repudiate that obligation, and assert that the city had no right to impose that condition, and that they are not bound by it. I cannot acquiesce in so bold an assumption. That the city had the right to impose this condition, as the consideration of its assent to the charter, and that the Company, having obtained that consent by means of their contract with the city to be bound by its ordinances, cannot now repudiate that contract or escape from it, seems to me to be a conclusion founded not only upon principles of sound reason and common honesty, but grounded also upon the firmest rules of law."

In 1883 we are informed by the report of J. D. Estabrook, Chief Commissioner of Highways, that the streets of the city were in unusually bad condition. Notices were sent to the companies that repairs must be undertaken, and in the language of the report, "The railway companies generally did a large amount of work, and soon put their streets in fair condition."[1]

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[1] The amount of roadway thus put in fair condition appears from the following figures from the report of the Commissioner:

Total length of all streets in Philadelphia	1060.51	miles.
Total length of all paved streets	573.54	"
Total length paved streets occupied by railways	203.74	"

The response of the companies to the requirements of the Chief Commissioner to "mend their ways" in a double sense again coincides with a legal decision affirming their responsibility. The Navy Yard, Broad Street & Fairmount Passenger Railway Company had a provision in its charter requiring the company to keep in repair "that portion of the street which they use and occupy." This Company had consolidated with the Thirteenth & Fifteenth Sts. Passenger Railway Company, and suit in equity was now brought for injunction to prevent the Commissioner from stopping the running of the cars while the street, neglected by the Company, was being repaired by the city, on the ground that the correct interpretation of the charter required the Company to pave and keep in repair only the space between the tracks. The judgment of the case already cited was affirmed, the court holding that the words "that portion of the streets which they use and occupy" signified the length of street which they used.[1]

But the unwonted zeal of the companies is hardly to be attributed solely to the decision of the Court of Common Pleas. This was the period of the activity of the famous Committee of One Hundred, a body of citizens organized to deliver Philadelphia from the clutches of the Gas Ring, a worthy rival of Tammany in the arts of municipal corruption. In May, 1882, the Committee engaged an inspector of highways, and in the fall the Sub-Committee on Municipal Abuses made a report charging that gross irregularities existed in the management of the Department of Highways. The resulting investigation proved that great abuses indeed existed, and brought about partial reformation. It was in consequence of this agitation that the railway companies found it expedient to put their streets in "fair condition."

Soon the paving question assumed a new phase. Philadelphia was becoming ashamed of her antiquated cobble

[1] Thirteenth & Fifteenth Sts. Pass. Ry. Co. vs. Phila. & J. D. Estabrook, 16 Phila. Reports, 164.

stone pavements. In 1882 the city had only 281,055 square yards of Belgian block out of a total paved area of 7,921,055 square yards, the rest being cobble stones and rubble. The people began to feel keenly that the condition of the streets was far from creditable to a great municipality. Councils, responding to a popular demand, attempted to force the railway companies to repave the principal streets with improved paving material. May 6, 1886, the Commissioner of Highways was directed to order the Ridge Avenue Passenger Railway Company to repave with Belgian block a portion of one of the streets it occupied. The Company refused, and forthwith the city laid the pavement and brought suit to recover the amount expended. The Court of Common Pleas gave judgment for the city and defined the obligation of companies in unmistakable terms. The case was then appealed to the Supreme Court, and after a memorable legal battle the Supreme Court affirmed the judgment of the lower court.[1] The decision finally disposed of one of the claims of the companies thus: "It has never been seriously doubted, nor can it be, that the duty to repair or to repave, when either is adjudged necessary, extends to the entire roadway from curb to curb." And with reference to the obligation to lay improved pavement the decision is quite as explicit. "The company is bound to keep pace with the progress of the age in which it continues to exercise its corporate functions. The city authorities have just as much right to require it to repave at its own expense with a new, better and more expensive pavement, as they have to cause other streets to be repaved, in like manner, at the public expense." Under this decision the City Solicitor has collected about $475,000 of the amount expended by the city for paving streets occupied by the railways, the total amount claimed being $600,000.

Shortly after this decision was rendered, the companies sought from Councils authority to use the overhead electric

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[1] Phila. vs. Ridge Av. Pass. Ry. Co., 143 Pa. State Reports, 444.

system of propulsion.[1] The first ordinances, granted early in 1892, and passed over the veto of the mayor, gave the important privilege asked without defining anew the obligations of the companies, but in later ordinances, conveying the same privilege and covering most of the lines, Councils, in response to irresistible popular demand, strengthened the hold of the municipality on the companies by attaching to the grants a definition of the obligations of the companies to the city. One of these ordinances is reprinted in the appendix, and the very explicit paving provision will be found there.

Under the new ordinances the railway companies in co-operation with the city began to effect a notable transformation in Philadelphia pavements. In 1892 the companies laid 10.25 miles of asphalt and Belgian block, and during 1893 they repaved with these materials 50.39 miles of streets at an estimated cost of over $2,000,000. Meantime the city laid 66.55 miles of modern pavement.

In 1894 a still larger amount of work was done. The railway companies laid 131.17 miles of street with improved pavement at a cost of about $5,000,000, as estimated by the Chief of the Bureau of Highways. At the close of 1896

[1] The request of the companies for the privilege of using the overhead trolley system of traction met with violent opposition from a large proportion of the citizens of Philadelphia. A Union Committee for Opposing the Trolley System, composed of prominent and influential citizens, conducted a vigorous campaign against the proposed change of motive power. The party of opposition undoubtedly contained a considerable element of unreflecting conservatives, but a much larger part were thoroughly intelligent remonstrants against the introduction of an overhead construction which was deemed dangerous to life and property, the intelligent opponents contending that it would be better to tolerate the old system for a short time until the underground trolley, the storage battery, compressed air, or some more desirable system of propulsion could be secured. Moreover, a considerable proportion of the opposition is explained by the prevalent distrust of the railway corporations and the consequent reluctance of the public to grant further favors to companies which had abused the privileges already conferred. This determined opposition forced the companies to make the important concessions noted above in order to secure the more profitable system of propulsion.

the Bureau estimates that 271 miles of street have been repaved by the companies since 1891 at a cost of about $9,000,000.

The change that has been wrought in Philadelphia by the co-operation of the companies and the city can be imagined when it is remembered that in 1891 the cobble stone pavement of medieval type was almost universal, while at the end of 1896 only 173 miles of cobble stone and rubble remained out of a total length of 812 miles of paved streets, exclusive of macadam.

Thus after nearly forty years of alternate neglect and partial performance of obligations, which were definitely assumed by most of the companies, and, it is safe to assert, clearly understood by both parties to the contract, the city of Philadelphia is at last in full enjoyment of the return which her representatives of a generation ago exacted as the greater part of the price of the valuable privileges they bestowed on street car companies.

The plain lesson derived from the foregoing sketch is that the imposition of an obligation upon street railway companies to pave and keep in repair the streets they traverse, is a most unwise and vexatious method of exacting a return for privileges granted. This fact is not apparent to Philadelphians at the present moment, for they are in the first flush of enjoyment of admirably paved streets. Almost the entire length of roadway traversed by the lines of the street car companies has been repaved within the past four years. The rapid transition from cobble stones to asphalt and Belgian block, which has transformed Philadelphia from one of the worst to one of the best paved cities in the United States, has induced a feeling of complacency that makes it easy to forget past sins of omission. But when the new pavements, which were the specific price of trolley privileges, begin to need extensive repairs and renewals, the old difficulties seem likely to reappear.[1] The

[1] Much of the pavement laid by the company does not meet the requirements of the specifications of the city, being of a less dura-

railway companies have no business interest in the maintenance of good pavements. Indeed, their business interests are distinctly opposed to them. The general use of the bicycle, a most formidable rival of the street cars in local transportation, is made practicable by smooth, well-kept pavements. In all large cities the bicycle has made serious inroads on the receipts of street railway companies, but in Philadelphia insult has been added to injury, since the irony of fate has compelled the companies to make smooth the highways of their adversaries. The induction from wide experience of corporate action in such matters, as well as the history we have just reviewed, seems to indicate that as the present pavement wears out the companies may be slow to recognize the need for repair and renewal.

The experience of Philadelphia emphasizes the generally recognized fact that a city should never entrust the care of its highways to any agent other than a municipal official or commission, so chosen as to be immediately and effectively influenced by public opinion. So long as public opinion, demanding well-kept streets, can only operate through a municipal officer who must be urged to the difficult task of moving a great corporation, often reluctant to act, and with large opportunities for delaying and even evading the discharge of duty, it will not be surprising if the streets are badly neglected.[1]

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ble character than the city desired. The municipal officers stated that they found it inexpedient to attempt to enforce the specifications rigidly. The Chief of the Bureau of Highways in his report for 1895 reveals a somewhat remarkable system of inspection. He says: "Permit me to call attention to the fact that the Bureau is receiving the assistance of a number of inspectors assigned to duty upon the work of the passenger railway companies and other corporations, these inspectors being paid by the company or corporation whose work they are assigned to inspect. . . . In my judgment it is not calculated to produce the best results."

[1] It is interesting to note that in the report of the Bureau of Highways for 1896, Chief Hicks urges that the city should resume the responsibility of repaving and repairing all of its streets, and should arrange with the Traction Company for a percentage of gross receipts in return for release from the paving obligation.

II. *Tax on Dividends.*—A second form of obligation, imposed on most but not all of the companies, is the payment of a tax on dividends when such dividends are in excess of 6 per cent. Of the seventeen companies chartered before 1874, and maintaining their corporate existence until the recent consolidations, fifteen were obligated by their charters to pay the dividend tax, while two were exempt.[1] Of the fifteen some are obliged to pay 6 per cent. on the entire dividend, if it exceeds 6 per cent. on capital stock, while others are under contract to pay 6 per cent. on the excess of dividend above 6 per cent. on capital stock.

None of the companies chartered since 1874 have been required to pay a tax on dividends. There is no provision for it in the general incorporation law, and Councils have not chosen to exercise their right to impose the tax as a condition of their consent.

Although this obligation seemed unquestionable, the companies attempted to evade it. The *Sunday Dispatch* of October 9, 1859, calls the attention of the public to the fact that the dividend tax provision of the charters is not being enforced, and that no payments had been made except by the Frankford & Southwark Company.

The Controller's report for 1859 credits the Citizens Company with the payment of $253.50, presumably a dividend tax, although this is not specified. In 1860 two roads paid dividend taxes amounting to $2471.78. The following year the total return, three roads contributing, was only $1550.99.

In 1863 City Solicitor Brewster says in his report: "These (street railway) companies have hitherto been in the habit of deciding for themselves what amount should be paid to the city for dividend tax, and under their con-

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[1] The two companies not specifically subjected to the dividend tax were the Lombard and South Sts. Co. and the People's Pass. Ry. Co. Their charters provide that the companies shall pay "such taxes and tolls as are now or may hereafter be imposed by Councils of said city, not exceeding in rate or amount that paid by any other railway company in said city."

struction of the law the receipts have been much less than they should have been. . . . Most of the railway companies have been making great profits and dividing among their stockholders very large dividends, amounting in many cases to fifteen and twenty per cent. on their investment."

The interpretation of the charter obligation to which the City Solicitor objected furnishes an excellent illustration of the devices to which the companies resorted to avoid the performance of their obligations. The amount of paid-in capital rarely reached the limit of the amount of stock which the companies were authorized to issue. In many cases the paid-in stock was not more than from 10 to 20 per cent. of the authorized capital. This fact suggested a means to avoid the dividend tax. The companies claimed that "capital" in the charter clause was to be interpreted as authorized capital, and began to pay on this basis. One of the companies, indeed, secured a supplementary act in 1864 construing capital as authorized capital.

The amount paid under this interpretation was very small, and a City Solicitor who was zealous in his care of the interests of the city, brought suit in 1865 to compel payment on a basis of paid-in capital. The case was framed against a company with a paid-in capital of $192,-750 and an authorized capital of $500,000. The company contended that the payment should be on the basis of the latter amount. On appeal, the Supreme Court decided that "capital" in the charter meant paid-in capital.[1] Two cases involving this same point were brought before the Supreme Court in 1866, and the earlier decision was affirmed.[2] Thus by three successive decisions this question was settled.

But the resources of the railways for evasion of dividend taxation were not exhausted by these decisions. In 1883

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[1] Citizens Pass. Ry. Co. vs. Phila., 49 Pa. State Reports, 251.

[2] Second & Third Sts. Pass. Ry. Co. vs. Phila., 51 Pa. State Reports, 465; Phila. vs. Gray's Ferry Pass. Ry. Co., 52 Pa. State Reports, 177.

a case appeared before the Supreme Court in which a new manifestation of legal ingenuity was given. The charter of the Ridge Av. Passenger Ry. Company provided that there should be paid "annually" into the city treasury "a tax of 6 per cent. upon so much of any dividend declared which may exceed 6 per cent. upon their said capital stock." The directors were authorized to declare dividends at such times as they deemed expedient. The Company maintained that their charter thus provided that if any single dividend exceeded 6 per cent. it became subject to taxation, but if, for instance, during the year quarterly dividends of 6 per cent. were declared, amounting to a total annual dividend of 24 per cent., the tax provision did not apply, since no single dividend exceeded 6 per cent. The Court was not impressed with the legal force of this argument, and the common sense interpretation of "annually" received a judicial sanction which defeated a most ingenious attempt to pervert the intention of the law.[1]

The result of the legal contest in 1865 and 1866 was the collection by the City Solicitor of more than $11,000 in 1865, and of about $46,300 in 1866, a large proportion of these amounts being arrears due. From that time collection seems to have been irregular for several years. From 1873 to 1878 the tax yielded from $21,000 to $25,000 annually. From that time it increased. In 1880 it was $36,548. In 1885 it reached high water mark of $104,043. The last return, that for 1895, gives as the amount collected for dividend tax, $92,339.20.

An investigation made in 1895 indicated that the companies were paying several thousand dollars a year less than conformity with the provisions of their charters requires. After giving figures of several companies, the writer concludes: "An examination of these figures seems to show that in the case of each of these roads the capital stock

[1] Phila. vs. Ridge Av. Pass. Ry. Co., 102 Pa. State Reports, 190.

issued, instead of the paid-in capital, is made the basis of ascertaining the excess upon which the company is liable."[1]

III. *Car License Fees.*—The third form of obligation to the city, and the one which has been enforced with the least difficulty, is the tax on cars, imposed upon all companies. The ordinance of 1857 exacted an annual license fee of five dollars on each car "intended to run." The car tax was increased in 1859 to $30 and in 1867 to $50, at which rate it has since remained. An additional tax of $50 is imposed on each car regularly operated on a line which crosses a bridge owned by the city. The amount yielded by this tax as reported by the City Controller is as follows for the years indicated:

1860	$10,173
1865	11,345
1870	24,058
1875	27,914
1880	40,191
1885	47,987
1890	54,209
1895	76,163
1896	97,550

Unfortunately, ease of collection is the only merit which the car tax possesses. It evidently tends to keep the number of cars provided by the company down to the lowest limit necessary to accommodate the traffic, and is thus responsible in some degree for the greatly overcrowded cars from which the city suffers.[2]

[1] Albert A. Bird—Phila. St. Railways and the Municipality. *Citizen*, January, 1896.

[2] In these days when loud complaint is made that the companies do not provide a sufficient number of cars, it is somewhat amusing to note that early in the history of the railways, when the validity of the car tax was questioned, it was sustained by the Court on the ground that it was a proper exercise of the police power as a means for limiting the number of cars and thus preventing obstruction of the highways.

We are now able to make a close approximation to the amount received annually by the city of Philadelphia in return for street railway franchises which the financiers of the Union Traction Company value at about $75,000,000. We have seen that the return to the city is of three kinds, the paving and maintenance of the streets, a dividend tax and a car tax. The amount of the dividend tax and the car tax is perfectly definite, and it is possible to make a close estimate of the value of the paving and maintenance obligation.

The estimate of the Bureau of Highways of the amount expended by the railways on repaving the streets is $9,000,000. The Union Traction Company claims to have expended $14,000,000. Taking the figure of the Bureau as a basis, we have as the approximate total return to the city from the special taxation of the street railway companies:

Paving and maintaining streets.......	$450,000 [1]
Dividend tax	92,000
Car tax	97,000
	$639,000

The amount which the city thus receives from its railway companies is equivalent to a tax of six per cent. on present gross receipts, and of about nine-tenths of one per cent. on the estimated value of the franchises.[2]

In addition to the municipal taxation described, the passenger railway companies are subject to taxation for State

[1] This amount is 5 per cent. interest on $9,000,000 expended on paving. It is understood that these pavements were laid under a ten year guarantee by the paving companies, who must maintain them during that time. Afterward the companies will be subject to a renewal charge, estimated at $450,000 annually by Mr. Thomas Dolan, a prominent director. An official of the Bureau of Highways states that the renewal estimate is excessive.

[2] This does not include taxes on real estate, which the companies pay in common with all real property holders. This tax amounts to about $45,000.

purposes. In common with all corporations, the companies pay a tax of one-half of one per cent. on the actual value of their capital stock, and in common with all transportation companies, they pay to the State eight-tenths of one per cent. of gross receipts.[1] This taxation yielded the following amount for the year ending November 30, 1896, as reported by the Auditor-General:

Tax on capital stock	$432,844.17
Tax on gross receipts	91,391.85
Total State tax	$524,236.02

The total annual amount paid by the street railway companies of Philadelphia to city and State is thus at present about $1,163,000, inclusive of interest on investment in pavements and exclusive of ordinary taxation on real estate. This sum is equivalent to a tax of about eleven per cent. on gross receipts.

A few comparative figures of the rates of taxation paid by street railway systems elsewhere are of interest in this connection. It should not be forgotten, however, that conditions of railway service differ widely in different cities and such comparative figures should therefore be used with caution.

The terms on which the Toronto, Canada, railways are operated have been much discussed during the past few years as an object lesson for other cities. Toronto bought the roads, and in 1891 leased them to an operating corporation on the following terms. The railway company pays to the city an annual rent of $800 per mile of single track and a progressive percentage of gross receipts, beginning at 8 per cent. on receipts up to $1,000,000, and reaching a

[1] All bonds held by citizens of Pennsylvania are subject to a State tax of four-tenths of one per cent., but since this is a tax on the bondholder rather than on the company, the tax on bonds is not reckoned as an element in the special taxation of street railway companies.

maximum of 20 per cent. on all receipts above $3,000,000. Tickets are sold regularly at the rate of six for twenty-five cents; special workingmen's tickets, limited to the early morning and early evening, at eight for twenty-five cents, and school children's tickets at ten for twenty-five cents. If the Toronto system were applied to the railways of Philadelphia at the present time the annual net return to the city would be about $2,000,000, or about $800,000 more than is now received by both city and State. This estimate makes allowance for the fact that under the Toronto plan the cost of construction would be chargeable to the municipality, not to the companies as at present.

In Baltimore the railway companies are under obligation to pave between their tracks and twenty-four inches outside the outer rail, to pay a direct tax of two per cent. to the city on the market value of their stocks, in addition to a small tax on stocks to the State, and to pay 9 per cent. of gross receipts into the city treasury for the maintenance of the public parks. They also pay a very small car tax. These provisions applied to Philadelphia companies would insure the city a return of approximately $3,350,000, in addition to the paving between the tracks, the annual value of which cannot easily be accurately estimated. Thus the application of the Baltimore plan would nearly treble the present return to the public.

No other cities on this side of the Atlantic have in the past dealt as wisely with their railway franchises as those already mentioned. For instance, the consolidated Boston companies, under the West End Company, paid only $325,288 as taxes for the year ending September 30, 1895. In New York City the system of taxation is so complex that it is impossible to make a general comparison of any value. Under an act of 1892 all lines thereafter constructed pay a tax of 3 per cent. on gross receipts for the first five years, and thereafter 5 per cent. of gross receipts, and since 1893 all franchises have been publicly sold at auction under statutory requirement. New York thus seems likely to get

a fair return for all future privileges, although little has been realized in the past. Chicago has likewise realized very little from its railway franchises.

An examination of the conditions on which other American cities have bestowed their railway franchises shows that Philadelphia has, on the whole, realized more than other large cities, with two notable exceptions. But looking toward the future, it seems probable that those cities in which the street railways hold franchises for comparatively brief periods will soon be in enjoyment of a larger proportional return, either in taxes or in lower fares, than Philadelphia can hope to receive, unless municipal ownership should prove practicable. For as the present franchises expire, these cities will be able to readjust their contracts in the light of the experience of Glasgow and of Toronto, while it will be exceedingly difficult for Philadelphia to materially alter the existing obligations of her companies.

CHAPTER VI.

Public Control.

In order to understand the nature and limitations of the power of control possessed by the city of Philadelphia over her railway companies, it is necessary to glance at the circumstances under which the railways were chartered. The system began to develop at a period when the General Assembly of Pennsylvania was exercising its constitutional right to enact special and local legislation in a manner which resulted in much harm to local interests as well as grave demoralization of the legislature. Acting in a strictly local affair, without local knowledge or local responsibility, the State legislature granted the streets of Philadelphia to the railway companies on such terms as it saw fit. The conditions under which the companies obtained their privileges were thus prescribed by an authority which was not competent to deal wisely with the parties to the street railway contract, even if it had been disposed to deal fairly with them.

The antagonism of the interests of State and city first appears in the prodigality of grants to railway companies in face of strong opposition on the part of the citizens of Philadelphia to the excessive multiplication of the railways. The feeling of the city is expressed by a resolution of Councils, dated April 2, 1858, against the provision by the State legislature for the construction of additional lines of railway without consulting the municipal legislature. Councils furthermore requested that the General Assembly delegate to them the exclusive right to legislate in the matter of street railways. The answer to the protest was the grant of nine charters in April, 1858, and six additional charters in 1859.

These charters varied considerably in form, but almost all of them gave opportunity for the assertion of the city's right

of regulation by requiring the consent of Councils for the construction of the roads, or, in some cases, by binding the companies to obey ordinances made for the regulation of street railway companies. However, in 1868, the General Assembly attempted to nullify the powers of control which had been earlier bestowed upon the city, by the passage of an act which was significantly styled by press and people the "Railway Boss Act."[1] This noteworthy bit of legislation provided "that the several passenger railway corporations in the city of Philadelphia shall pay annually to the said city, in the month of January, the sum of $50, as required by their charters, for each car intended to be run over their roads during the year, and they shall not be obliged to pay any larger sum; *and said city shall have no power by ordinance or otherwise to regulate passenger railway companies unless authorized so to do by the laws of this commonwealth, expressly in terms relating to passenger railway corporations in the city of Philadelphia;* provided, that nothing contained in this act shall be construed to release said companies from keeping in good repair the streets on which the rails are laid, and from paying to the city the additional cost of constructing sewers along the lines of their roads, under an act approved May eight, one thousand eight hundred and sixty-one."

The constitutionality of this act was called into question in a suit between the Union Passenger Railway Company and the city, on the ground that it impaired the obligation of contract created by the charter of the company, which fixed the license fee of each car at $30, but the Supreme Court of Pennsylvania refused to declare the act unconstitutional in this respect,[2] and this judgment was affirmed by the Supreme Court of the United States, to which the case was carried on appeal.

The act was again involved in a notable case arising

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[1] Act of April 11, 1868.

[2] Union Pass. Ry. Co. vs. City of Philadelphia, 83 Pa. State Reports, 429.

through the attempt of the city to enforce the paving obligation against one of the companies, which claimed that under the act of 1868 its obligation was not to repave but only to repair the street.[1] In deciding the case in favor of the city the Supreme Court ignored the act. Its present force is thus left indeterminate.

As a curious example of the kind of regulation which the General Assembly undertook after the passage of the "Railway Boss Act," a statute of April 17, 1869, is interesting. This statute provides that "It shall not be lawful for any passenger railway company, or their officers, agents, employees or any other person or persons, to use salt on any passenger railway tracks or street within the corporate limits of Philadelphia," and then prescribes a penalty for the unlawful use of salt. And then two supplementary acts, one passed in 1870 and another in 1872, proceed to exempt from the prohibition certain portions of certain streets, declaring that within the specified boundaries the railway companies may salt their tracks at their discretion. The spectacle of the legislature of a great State gravely considering such a question as the establishment of metes and bounds within which the railways of Philadelphia shall be allowed to use salt to remove snow and ice from their tracks is happily made impossible at the present time.

The recognition of the evils of the domination of local interests by a body out of touch with local needs was one of the most potent factors in the movement which led to the adoption of a new State Constitution in 1873.[2] Art. III,

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[1] Ridge Av. Pass. Ry. Co. vs. City of Philadelphia, 143 Pa. State Reports, 444.

[2] The spirit in which the Constitution was framed is judicially set forth in the following words: "It is part of the pervading intent of that instrument to give local bodies the control of local affairs. . . . One of the prime objections of the people in calling a constitutional convention was to do away with special legislation which interfered with local affairs or granted privileges to particular bodies and withheld them from others with a semblance of partiality rather than of equal favor to all." Allegheny City vs. Railway, 150 Pa. State Reports, 411.

section 7, of the present Constitution provides that no local or special legislation incorporating or granting privileges to railway corporations shall be passed, and with reference to street railway companies the Constitution says: "No street passenger railway shall be constructed within the limits of any city, borough or township without the consent of its local authorities."[1] Thus the era of usurpation by the State of local functions of control in street railway matters came to an end.

Returning now to the consideration of the power of control which was vested in Councils, we find that it is largely based upon provisions inserted in most of the early charters and in several of the later acts incorporating the companies, requiring the consent of the Councils before the railways could be constructed. The usual form of the provision was to the effect that the consent of Councils should be assumed unless disapproval was expressed within thirty days after the passage of the act.

In 1857 Councils had made an ordinance to regulate passenger railways, and when the requisite consent for the construction of lines was given, the railway companies were forced to file written agreements binding themselves "to observe and be subject to all ordinances of the city in relation to passenger railways then in force and thereafter to be passed." The companies were thus definitely committed to obedience to municipal regulation.

We have seen that not all the charters required the consent of Councils. In almost all of those that do not specify consent, however, the companies are expressly bound either to observe the ordinance of 1857 or to observe "all ordinances heretofore or hereafter to be passed." In only two charters is it expressly stated that the consent of Councils shall not be required. This was the case of the Empire Passenger Railway Company, chartered in 1869, and the Union Passenger Railway Company, chartered in 1864. The latter act was passed over the veto of the Governor by

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[1] Constitution of Pennsylvania, Art. XVII, sect. 9.

the corrupt influence which was behind it, while the Empire Company was chartered under circumstances which suggest grave suspicion of corruption. These charters provide in terms which seem purposely ambiguous that the companies shall be subject to ordinances "regulating the running of passenger railway cars."

The right of control rested on the original charter and ordinance provisions until the companies asked Councils to give them the privilege of changing their motive power from horses to electricity. In 1876 the General Assembly had authorized passenger railways in cities of the first class[1] "to use other than animal power in the carriage of passengers in their cars, whenever authorized to do so by the Councils of said city."[2] Under this act two cable lines were constructed, one running east and west and the other north and south. The rest of the lines were operated by horses until 1892. Then the companies sought from Councils the privilege of using the overhead electric system of propulsion. The first ordinances granting this privilege on a few of the lines were passed in face of great public opposition on March 30, 1892, and imposed no new conditions on the companies. In response to an irresistible public demand for a *quid pro quo,* however, all the later ordinances bestowing these privileges on the rest of the lines imposed carefully specified obligations on the companies as a condition of the assent of Councils.

Thus the present power of control possessed by the city rests upon the original charter provisions, the original ordinances giving the requisite consent of Councils for the construction of the roads, and on the so-called "trolley ordinances" which reaffirm the obligation of the companies to obey all regulations made by ordinance.[3]

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[1] For purposes of legislation, the cities of Pennsylvania are divided into three classes, by a law of May 8, 1889. All cities having 600,000 or more inhabitants belong to the first class. Philadelphia is the only city at present in this class.

[2] Act of May 8, 1876.

[3] For an enumeration of these regulations see pp. 81, 82.

Since the power of the city over the companies is thus, in the case of most of the companies, dependent largely on ordinance provisions imposed as a condition of consent to the exercise of privileges by the railway companies, it is important to determine the legal right of the city to maintain such regulations. The legality of conditions thus specifically imposed by Councils is upheld in a strong opinion by the Supreme Court handed down December 30, 1893. The opinion says: "The man who can give the whole can give part, or who can grant absolutely can grant with a reservation of rent or other condition. He who can consent or refuse without reason does not make his consent or his refusal either better or worse by a good or a bad reason. It is conceded that the local authorities may impose some conditions, such as those relative to the police power; but where is the grant to any other body to supervise and limit the conditions or say what they shall be? The Legislature clearly cannot do it. . . . Nor can the courts trespass upon the discretion given by the Constitution absolutely to the local bodies. . . . It would require a very clear case of contravention of some controlling and paramount principle of public policy to justify an interference by the courts to put a limit on the unlimited constitutional grant."[1] The case in which this opinion was rendered involved the legality of a provision by the city councils of Allegheny requiring the payment of a dividend tax and fixing the rate of fare, but the language of the Court is general in its application.

In the case just cited, the charter of the company involved had been granted after the adoption of the present State constitution, which expressly requires the consent of local authorities for the construction of street railways, and thus the circumstances of the grant were somewhat different from those under which most of the Philadelphia companies are operating, since the provision for the consent of Councils was simply legislative in their case, not constitutional. But fortunately the Supreme Court has rendered an opinion in

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[1] Allegheny City vs. Railway, 150 Pa. State Reports, 411.

a similar case arising under a charter granted previous to 1874 and in which the provision for local consent did not rest on a constitutional mandate.

In this case,[1] dating back to 1870, the Supreme Court decided that under a special charter provision of a street railway company requiring the consent of the local authorities for the construction of the line, the city was justified in imposing a tax on cars and a tax on dividends as the conditions of its consent. The language of the decision is most explicit on the question of local control of the company. "The power of the municipal authority to give or refuse consent is unlimited and unqualified. That necessarily implies the power to impose reasonable conditions in giving their consent. If they impose unreasonable conditions, all the company can do is to refuse to accept."

It is thus definitely determined by the highest tribunal of the State that all conditions imposed by Councils in granting the consent made necessary by the provision of the special acts chartering the companies up to 1874 and by the constitutional provision since that time are valid parts of a contract entered into between the city and the railway companies.

The ordinances and some of the charters provide that the companies shall agree to observe the terms and conditions of all laws and ordinances then in force or thereafter to be passed relating to the government, control or regulation of railways within the city of Philadelphia. The scope of the regulation which may be exercised under this sweeping provision has never been judicially determined, but it would seem that the only limitation upon the authority of Councils is the requirement that the regulations imposed must be reasonable. The City Solicitor in a recent opinion takes this view.

Having considered the nature and the scope of the control which the city may exercise over its street railway com-

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[1] Federal St. Ry. Co. vs. City of Allegheny, 14 Pittsburg, Leg. Jour., N. S., 259.

panies, we have now to learn what use the municipality has made of its authority up to the present time.

The first ordinance regulating street railways was that of July 7, 1857.[1] The provisions of this ordinance, briefly summarized, are as follows. The companies are required:

(1) To build their roads in accordance with plans approved by the city Board of Surveys and Regulations.

(2) To maintain, pave, repave and repair all streets occupied by their tracks.

(3) To make repairs or to pave streets on order of the Chief Commissioner of Highways, under penalty of a stoppage of their cars.

(4) To employ "careful, sober and prudent agents, conductors and drivers."

(5) To refrain from running their cars at a speed greater than six miles an hour in the "built-up portions of the city."

(6) To pay an annual license fee of five dollars "for each car intended to run."

(7) To file a statement of the entire cost of their roads and to concede to the city the right to purchase the same at any time.

The provisions requiring the companies to pave the streets and to pay a license for each car have already been considered at length, and the important provision allowing the city to purchase the roads at any time will receive separate and detailed consideration later.[2]

This original ordinance was slightly amended in 1859. The principal change was the insertion of a clause directing the Commissioner of Highways to pave streets which were neglected by the companies and to collect the cost through the law department.

No regulations of importance in addition to those of the ordinances of 1857 were made until 1876. In that year Councils decreed that the Lombard and South Streets Passenger Railway Company should be allowed to use a bridge

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[1] See appendix, p. 117, for text of ordinance.

[2] Chapter VII, p. 83.

owned by the city on condition of a reduction of fare from six cents to five cents.[1] In 1881 it was ordered that no further privileges be granted to railway companies except on condition of five-cent fare.[2] It will be noted that Councils did not stand upon their right of regulation conveyed by the agreement of many of the companies to observe all ordinances "to be passed," but made the regulation part of the terms to be exacted when railway companies asked for further privileges.

This reduction of fare was evidently made in a somewhat abnormal mood of virtuous regard for the interests of the citizens as opposed to those of the railway companies, for we find Councils speedily relapsing into their ordinary condition of indulgence toward the railway interests. When opportunity came to apply their regulation in the case of two important companies they granted the privileges and expressly waived the condition.[3] Nevertheless, in a few instances they stood by their declared intention and brought about a reduction of fares under the ordinance of 1881.

No further extension of the city's function of control was attempted until the passage of the "trolley ordinances," beginning in 1892. These ordinances make the following provisions for the regulation of the companies accepting the franchise for the use of the overhead electric system:

(2) The companies must pave, repave and maintain in good order at all times the streets traversed.

(3) The companies must agree to observe all laws and ordinances which are in force or shall be made relative to passenger railway companies.

(4) Their construction and equipment must be subject to the approval of the Director of Public Works.

(5) They must remove the overhead electric construction whenever Councils by ordinance so direct.

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[1] Ordinance of July 14, 1876.

[2] Ordinance of June 16, 1881.

[3] Ordinance of Feb. 9, 1884, and April 14, 1886.

(6) Cars shall be run at certain prescribed intervals.

(7) The rate of fare for a single continuous ride shall not exceed five cents from five o'clock A. M. to midnight, and shall not exceed ten cents from midnight to five o'clock A. M.

(8) The roads shall in no way conflict with the construction and maintenance of elevated roads.[1]

During the past year there has been much discussion of the possibility and the advisability of exercising the power of control to reduce fares, to shorten the hours of labor for the employees, and to provide vestibules for the protection of the motormen, but no action with reference to the regulation of these matters has been taken by Councils.

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[1] See appendix for text of ordinance.

CHAPTER VII.

Municipal Ownership.

Within the past few years the question of the advisability of extending the functions of the State in the industrial field has been much debated in the United States. The European experiments with public ownership and management of railways, telegraphs, gas and electric plants, and street railways have been eagerly watched from this country, while the recent bolder ventures of certain cities, especially those of Great Britain, in the direction of "municipal socialism" have been followed with deep interest. The prevalent American faith in the doctrine of *laissez faire*, so effectually preached by the older economists, has weakened as the power of aggregated capital has increased through ever widening combination. Supported by European experience and by a few successful American experiments in municipal ownership of gas and electric lighting plants, and furthered by revelations of corruption in the grant of franchises and award of public contracts under monopoly influence, the arguments in favor of the municipalization of lighting, communication and transportation facilities have deeply impressed a large number of the influential business and professional men of our cities, while the wage-earners, represented by the labor organizations, are enthusiastic in their advocacy of municipal ownership of such public enterprises.

Under these conditions a consideration of the possibilities of municipal ownership of the street railways of Philadelphia is of much importance. The situation in Philadelphia in this respect is unique. In many cities railway franchises are granted to private corporations for a definite period. In some cases at the end of the period the municipality be-

comes the owner of the road.[1] In others the city has the right of purchase at the end of the franchise term.[2]

In the case of the Philadelphia railways the General Assembly has placed no limitation on the period of their corporate existence.[3] But it was provided that the charter privileges should not become operative until the city had given its consent to the construction of the lines. In giving the requisite consent the Councils prescribed certain conditions, among which was the following most important provision: "That the directors of any such company or companies shall, immediately after the completion of any passenger railroad in the city, file, in the office of the City Solicitor, a detailed statement, under the seal of the company, and certified under oath or affirmation by the president and secretary, of the entire cost of the same; *and the City of Philadelphia reserves the right at any time to purchase the same, by paying the original cost of said road or roads and cars at a fair valuation.* And any such company or companies refusing to consent to such purchase shall forfeit all

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[1] Berlin, Hamburg and Cologne, in Germany, and Buda-Pest, in Hungary, become owners of their roads at the expiration of the franchise terms.

[2] All English cities can buy their railways twenty-one years after a charter is granted to a private corporation, paying the cost of replacing the roads at the time of purchase. Many cities in England have already bought their railways under this provision.

In Toronto, a railway company was granted in 1861 a franchise for thirty years, and at the end of that time the city bought the roads at a price fixed by three arbitrators appointed under an act of the Provincial Parliament.

In Cleveland, Ohio, the City Council determines the length of the franchise period under a statutory provision fixing a maximum term, which until the last session of the Legislature was twenty-five years, and is now fifty years in some special cases. The Council "may renew any such grant at its expiration upon such conditions as may be considered conducive to the public interest." Or the Council may refuse to renew the grant and purchase the road.

[3] In two cases the original charters limited the corporate existence to twenty years, but the limitation in each case was subsequently removed.

privileges, rights and immunities they may have acquired in the use or possession of any of the highways as aforesaid."[1]

This is certainly a remarkable provision in view of the fact that it was made at the beginning of the development of street railways and at a period when the doctrine of *laissez faire* held almost undisputed sway in the United States. Its adoption by the councilmen of 1857 gives evidence either of remarkable forethought which one would hardly predicate of Philadelphia Councils of that period, or of a lack of understanding of the significance of such a clause. The latter hypothesis seems the most reasonable. It is supported by the fact that little attention seems to have been given to this clause in the discussion which raged over the new system of transportation at the time.

The advantages of municipal ownership of the street railways were suggested by the Chief Engineer and Surveyor of Philadelphia in a report presented to Councils in 1855, and it seems probable that the important clause in the ordinance of 1857 was inserted as a result of his suggestion, without serious consideration of its far-reaching possibilities.

When the introduction of a street railway system was first under discussion, Mr. Strickland Kneass, the Chief Engineer, a man eminent in his profession and of wide influence, was requested by Councils to investigate the system and report to a special committee on city passenger railroads. Addressing the chairman of the committee, under the date of October 12, 1855, he "begs leave to offer a few remarks preparatory to your report to Councils," and proceeds to point out the great advantages of the proposed innovation over the existing omnibus system. After dwelling on the technical details of railway construction, he closes his communication with the following recommendation, which is certainly worthy of quotation in full: "As regards the policy that should govern the construction of city passenger railroads, I am inclined to the opinion that to secure

[1] Ordinance of July 7, 1857, Sect. VIII.

the true interests of the city, as well as their proper management, they should be built and maintained by the corporation—the city issuing a license for each car to companies who may have each the exclusive use of a certain route, the company to pay annually an amount that shall be an assessment upon each passenger carried, the rates to be regulated annually from sworn returns made by the officers of the company.

"The cars will then bear the same relation to the city that the omnibuses now do, and will prevent incessant clashing between companies that would otherwise be compelled to use a portion of each other's routes; it will place in the power of the city the means to correct abuses, preventing imposition upon its citizens and the creating what should be a public benefit, a nuisance. The city will then know where to look for the proper repair of its highways, and not be, in a measure, dependent upon a company of individuals whose only interest will be the amount of dividends realized.

"If it is advisable (and I agree such is the case) that a commencement be made at once, such contracts should be entered into with capitalists who seek the investment, as will enable the city to obtain the possession of the roads as soon as the financial condition of its treasury will permit, or whatever arrangement to reach that point Councils may decide upon."

The clear-sighted engineer who so accurately forecast the difficulties which the city later realized in dealing with the private companies should thus be given a large measure of credit for the unusual reservation of the power to purchase the roads at any time.

In later days the companies have declared that the purchase clause has no force, but it is apparent to any one who reviews the history of the time that the clause was clearly understood and definitely accepted by the original incorporators. Many citizens objected to the new railways on the ground that they promised enormous profits to the promoters and threatened dangerous monopolies. The

railway incorporators, in published statements, replied that the argument was absurd, since the city could avail itself of the reserved right to purchase the roads at any time at the original cost if it was found that the new enterprise was yielding excessive profits.

The clause seems to have been ignored until very recent years. Only once was it used by the public as a threat to bring the companies to terms, and then it was ineffectual. When the fare was raised from five to six cents in 1864 the Common Council ordered the report of an ordinance to provide for the purchase of the roads charging the advanced fare. But no further action was taken.

The formation of the Union Traction Company in 1895 and its action in abolishing free transfers gave rise to a formidable agitation against the company and incidentally to a strong demand for the exercise of the reserved right of purchase. The existence of the clause conveying the right was unknown to most of the citizens of Philadelphia, and the newly discovered possibility of acquiring the lines was hailed with much enthusiasm. At a great mass-meeting held December 5, 1895, to protest against the action of the Union Traction Company in abolishing free transfers, every expression of the speakers in favor of municipal ownership was greeted with loud applause by an audience which was apparently rather conservative in character. The resolutions adopted by the meeting closed with the following paragraph:

"*Resolved finally,* That if the Union Traction Company shall fail to meet these just demands in such a spirit, the said committee shall be charged with the duty of considering whether the people should not assert their primary right and exercise their reserved power of purchasing the street railways, and with the further duty of addressing all candidates for Councils on this subject, and of leading a popular movement to support no candidate who will not pledge himself to sustain the rights of the people."

On January 9, 1896, the Municipal League presented to

the Common Council a resolution favoring municipal assumption of the lines, and a similar communication was received from the committee appointed by the mass-meeting just mentioned. This committee included some of Philadelphia's most prominent and influential citizens, ex-Governor Pattison, ex-Postmaster John Field, and Senator Penrose being leading members of the body. On the same day that these communications were received an ordinance providing for the purchase of two roads was introduced and referred to committee.

For a time it looked as if the movement for immediate municipal ownership would assume formidable proportions, but the Union Traction Company quietly pursued its announced policy, making no concessions to the demand for lower fares or restoration of transfer privileges, and the agitation gradually subsided. The public seem to have accepted the new conditions, and at the present moment (January, 1897) there is no public discussion of municipal ownership.

Meantime the question of the legal right of the city to secure the roads under the ordinance of 1857 is of the utmost importance to the citizens and the stockholders alike. The financial results of purchase on the terms of the ordinance would be startling. The clause gives the city the right to purchase at "the original cost of said roads." There is no allowance for the value of the franchise. Thus interpreting the clause literally, the city could buy the Frankford and Southwark Passenger Railway for about $1,800,000, the latest reported cost of construction and equipment, while at present market rates the stock of this company is worth about $12,525,000.

It seems incredible that the public and the railway investors alike should have ignored a provision which permits such radical financial reconstruction of the railway system at the pleasure of the city, but although in the absence of judicial interpretation of the purchase clause it is impossible to speak with certainty, there is much force in the argument

that the ordinance provision is entirely valid and capable of putting the municipality into possession of at least a large part of the railways.

The case of the right of the city to purchase rests upon these facts: The charters under which almost all of the railway companies of Philadelphia operate required the consent of Councils for the construction of the roads. In giving the necessary consent, Councils required these companies to file a statement of cost of construction and an agreement to comply with the provisions of the ordinance of 1857, which contained the purchase clause, as a condition of their consent to the occupation by the companies of the streets of the city.[1] In addition, several of the companies were expressly made subject to the ordinance of 1857 by provisions in their charters. The others in accepting their franchises with the condition that they observe all ordinances made by the city for the regulation of passenger railway companies seem to have accepted the purchase clause. The Supreme Court of Pennsylvania, in decisions already cited, has upheld the right of a municipality to impose such conditions as it chooses in giving consent to the occupation of its streets by passenger railway companies.[2] Therefore the acceptance of the franchises on the express conditions of the ordinance seems to have made the purchase clause a valid part of the contract between the city and the railways. And furthermore, the recent "trolley ordinances" have specifically reaffirmed the obligations of the companies, save the few which obtained the trolley privileges on March 31, 1892, to accept as binding "the terms and conditions of all laws and ordinances now in force, or which may hereafter be passed relative to the government, control or regulation of railways."

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[1] A recent search of the records has brought to light statements of cost of construction by five of the companies, all filed in 1859, in accordance with the requirement of the ordinance. The rest of the statements that were presumably filed cannot be found.

[2] See page 78.

With reference to the validity of the purchase provision, the Law Committee of the Municipal League, which made an investigation of the relations of the municipality and the railways a few years ago, said in their report: "So far as the researches of your committee have gone, no reason has been discovered why the city has not a legal right to take advantage of the provision referred to, and it would seem, if authority were needed to authorize the city to lease or operate railways so acquired, that it might be acquired from the acts of Assembly incorporating the several companies which by reference have incorporated the ordinance of 1857 as part of said acts."

During the recent agitation, the Law Committee of Councils sought an opinion from the City Solicitor with reference to the effect of the change of motive power on the validity of the purchasing clause. The Solicitor's opinion was naturally very guarded. He said: "How far, therefore, the right of the city to purchase, under the terms of the ordinance of 1857, may have been affected by the lapse of time, by changes in the companies and by the granting of new privileges, or whether the delay and granting of new privileges may be held to be a waiver by the city of the right to purchase, are questions which the court would be required to pass upon; or possibly a jury, if any question of fact arose. At the time of the filing of the statements the power to purchase undoubtedly existed, and still exists, unless affected by the facts I have referred to." In its report to Councils, the committee says truly: "It is a fact that Section 8 of the ordinance of 1857 has stood there unchallenged, unamended, unrepealed. As each road has been granted additional privileges by Councils, it has, by its own agreement, made itself amenable and liable to its provisions. It is an integral part of every grant to occupy a street for railway purposes. Every dollar that has been spent upon every railroad in Philadelphia has been spent with full knowledge of its existence. Changes in corporations have taken place, new companies have been formed under new

laws, improved methods of transit adopted, new systems of pavement introduced; some of the companies have filed statements of cost as required by it, and all subject to this apparently plain, direct contract with the City of Philadelphia, that they should surrender all under the conditions of the section. A magic spell seems to have been over all for nearly forty years—railway managers and city officials alike—to have permitted so far-reaching and important an enactment to lie totally neglected and apparently forgotten."

In view of the large financial interest involved, it is apparent that when the interpretation of the clause is demanded from the courts the resources of legal subtlety will be exhausted in the attempt to secure a decision denying the right of purchase, or imposing terms that will make it impossible for the city to realize the advantages of lower fare.

CHAPTER VIII.

Corporate Influence in State and Municipal Government.

The people of the United States are sadly familiar with the fact that the relations of the representatives of the people and private corporations conducting enterprises depending on grants of public franchises have not in the past been marked by the maintenance on either side of high ideals of honesty and just dealing with the public. Men of strict integrity in private relations have as directors of corporations participated in actions which have made the term "corporate conscience" a byword among Americans. When the lecturer of the Ethical Society of Philadelphia announced during the agitation for lower fares that he would speak on "The Morals of the Union Traction Company," the town smiled and insisted that he had chosen a barren topic, for the Union Traction Company had no morals. Yet its high officials are without exception men whose business integrity in private dealings is beyond question. Whatever may be the basis for the feeling thus reflected, the general impression that great corporations enjoying public franchises consider themselves morally irresponsible is unquestionably a most serious factor in our present social situation.

It is often urged by those who deprecate the extension of governmental functions that public ownership and management of enterprises based on public franchises would result in lamentable corruption of our politics by increasing the number of places in the gift of successful politicians, thus adding strength to the motive which makes and maintains political machines for private aggrandisement. Whatever may be the force of this argument, it is unfortunately true that close beside the Scylla of public management there is a Charybdis of private control. In Philadelphia, as elsewhere,

private corporations enjoying public privileges have found it desirable to corrupt government for their own ends, and have been most successful in realizing their desires.

The history of corporate corruption in the street railway field begins with the inception of the system. The right to build street railways in Philadelphia was given to each company by special act of the General Assembly. The General Assembly in those days was a body notoriously ready to exercise its power of special and local legislation in behalf of those who offered in return a consideration which was not expected to find its way into the public treasury. There is little doubt that some of the early charters were purchased. Apart from the specific charges of the newspapers of the day, one cannot review the numerous charters granted in 1858 and 1859, in face of the forcible protest of the best citizens of Philadelphia against the reckless multiplication of companies, without feeling assured that the grants were not prompted in every instance by considerations of public expediency alone.

But the most notorious instance of corruption came a little later in the open purchase of the charter of the Union Passenger Railway Company in 1864. It is beyond question that options on stock were liberally distributed among members of the General Assembly to secure this charter. When the act incorporating the company was passed, the *Sunday Dispatch* declared, not without truth, "There is nothing in the statute books which conceals a more nefarious and scandalous history than that which is connected with this last legislative atrocity."

The motives which led Councils to give the necessary consent for the construction of the lines are not beyond question in all cases, but it should be remembered that the local legislators attached conditions to their assent which probably seemed to them to insure ample compensation to the public for privileges bestowed. It is also to their credit that they entered formal protest against the grant of their streets by a body unfamiliar with local needs, and although

they afterward gave their consent to the very charters against which they had protested, it may be urged in justification that they knew the General Assembly might grant these privileges a second time without requiring their consent, and so deemed it wise to improve the opportunity to secure a return to the public by a conditional approval.

Perhaps the most striking instance of the influence of the railway companies on the State legislature during this early period is the so-called "Railway Boss Act" of 1868, already alluded to,[1] which provided, first, that passenger railway corporations in the city of Philadelphia should pay $50 annual license fee for each car, and then proceeded, "and said city shall have no power, by ordinance or otherwise, to regulate passenger railway companies unless authorized to do so by the laws of this commonwealth, expressly in terms relating to passenger railway corporations in the city of Philadelphia."

This act, as generally understood, is an indication of the fact that the companies had a surer grip on the legislature of Pennsylvania than on the Councils of Philadelphia, and so attempted to secure themselves against interference from the city. If this interpretation is correct, their hold on the General Assembly was destined to be less useful to them than they anticipated in 1868, for six years later a new constitution forbidding local and special legislation was put in force by a people out of patience with the corruption and inefficiency encouraged by the former constitution, which gave practically unlimited scope to local and special legislation.

Meantime, while the government of the State was partly redeemed by the new constitution which limited the power of the General Assembly for evil, the government of the city had fallen into the hands of a band of political conspirators within the Republican party known as the Gas Ring.[2]

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[1] See p. 74.

[2] See chapter on the Philadelphia Gas Ring in Bryce's American Commonwealth, Vol. II.

Building on their control of the gas department, they gradually incorporated into their structure of corrupt power almost every department of municipal government. The ownership of one of the principal street railways of the city aided their schemes by increasing the number of votes under their control. The main advantages to the railways of the Gas Ring regime were non-enforcement of their obligations to the city.

In 1881 a citizens' Committee of One Hundred broke the power of the Gas Ring, and in 1885 the reformers secured the passage of a new charter for the city of Philadelphia, under which much has been done during the past ten years to better the government of the city on the executive side. Little has been accomplished, however, in the way of securing better local legislators.

Although the influence of the companies in city and State had been exerted on occasion to further the plans of the railways at the expense of the public, as has been indicated, no systematic attempt to control public officials appears to have been made until within the past twelve years. But, just about the time that the city was shaking off the yoke of the Gas Ring, a new influence made itself felt in State and local politics. The Philadelphia Traction Company, chartered in 1883 with the purpose of consolidating and operating existing street railways, and representing a powerful aggregation of capital, soon came to wield an influence with which political leaders found it necessary to reckon.

Councils early yielded to the hypnotic spell of the Traction Company. In 1881 they had bravely enacted that no further privileges should be granted to street railway companies except on condition of reduction of fare to five cents.[1] In 1884[2] and in 1886[3] we find them granting additional privileges to the West Philadelphia Company and the Union Company and expressly waiving the requirements of five

[1] Ordinance, June 16, 1881.

[2] Ordinance, February 9, 1884.

[3] Ordinance, April 14, 1886.

cent fare, and we note the significant fact that these companies were both leased and operated by the Philadelphia Traction Company.

But the influence of the Company was first clearly revealed to the public in 1887. In that year it rushed through the General Assembly a bill providing for the incorporation of motor companies and giving them extraordinary powers. The newspapers denounced the bill and the methods by which it had been forced through the General Assembly, and a great mass-meeting was held in Philadelphia on March 1, 1887, to enter protest against its approval by the Governor.

The methods of the Company and the character of the legislation which it had presumed to attempt are reflected by the speeches at the meeting and the editorials of the newspapers. Mr. W. W. Porter said at the mass-meeting: "This act, I say with deliberation, would reconstruct the corporation law of Philadelphia for the individual and selfish purposes of one corporation. . . . This bill would give a power of monopoly to throttle you and me and all of us." Mr. Hampton L. Carson, the distinguished historian of the Supreme Court, denounced the act as "an example of reckless and arbitrary power outgrowing all the bounds of decency and restraint." The conservative *Public Ledger* says of the bill: "It is wrong in policy, bad in principle, a trick and a fraud." And again the *Ledger* explains the public hostility to the company by saying that it is due to "the breaking of their bargains with the city, their pretence of abiding by the decisions of the courts of law, with their attempt to circumvent the courts by covered up and tricky proceedings in the legislature, and their defiant contempt of public rights."

The Traction Company bent before the storm. The bill was recalled by the General Assembly and again passed with some of its most objectionable features stricken out. But when the storm had passed, the Traction Company was still in possession of the field.

Soon the people of Philadelphia began to realize with increasing vividness that the public welfare was being subordinated in many instances to the interests of the railway corporations. The press freely and forcibly voiced the protest of the best element in the community against the domination of the corporations, but the railway interests were too strongly intrenched to be dislodged by the attacks of the newspapers. From the indignant citizen who asserted that "Traction owns the town" to the judicious editorial writer of the *Public Ledger* who spoke of "their defiant contempt of public rights," every Philadelphian felt that the railway companies were corrupting the municipality and controlling legislation for their selfish purposes.

A single instance, and that a recent one, will suffice to illustrate the extent of the political influence of the railway corporations. In the fall of 1894 the Philadelphia Traction Company attempted to obtain the right to use important streets in the northern district of Philadelphia. Under inspiration easily understood, Councils framed an ordinance giving to the Traction Company the exclusive right to the use of nearly one hundred miles of streets in one of the suburban districts, exacting absolutely no return for the exceedingly valuable privileges conveyed. The Traction Company did not even agree to build railways through the streets. It simply acquired monopoly right to hold the locations and use them if it wished.

Nothing but dense ignorance or corruption could have prompted such an ordinance at a time when every man who read the newspapers knew that in other cities similar privileges were eagerly sought by capitalists under conditions which secured large remuneration for the public. While the ordinance was pending the press exposed and denounced the scheme with unanimity and force. Councils were vehemently charged with corruption and threatened with popular vengeance. But the arguments of the Traction Company availed more with Councils than even an aroused public opinion. They passed the ordinance with

large majorities. The mayor vetoed it, and although the Traction Company had commanded on the first passage more than the necessary three-fifths vote to carry the ordinance over the veto, the Company apparently determined to yield to a public opinion that was growing ominous, and the veto was sustained.

And now comes the most remarkable part of the story. Every newspaper of repute in the city regardless of party had denounced the "Suburban Trolley Grab," as it was termed, and now as the annual municipal election approached, at which one-half of the Common Councilmen and one-third of the Select Councilmen were to be chosen, they demanded the defeat of every man who had voted for the "Traction Grab Bill." Lists of those who voted for the bill were published in all the papers, and their respective parties were exhorted not to renominate them.

But the political machine responded to other forces than those of public opinion. The terms of seven select councilmen who voted for the bill expired. All but one were renominated and all nominated were re-elected. In the Common Council the terms of forty-seven supporters of the "Traction Grab" expired. Thirty-six were renominated and thirty-five re-elected. The net result of the agitation of a united press and a long and vigorous reform campaign in behalf of honorable candidates was the election of one reform councilman. A more remarkable assertion of the control of a municipality by a political machine identified with the interests of a railway company it would be hard to find.

The Philadelphia press, pulpit and platform have continually proclaimed in recent years, practically unchallenged, that a considerable number of councilmen are in the pay of the street railways and other great corporations. It is generally known that until recently the recommendation of a councilman was the surest road to an appointment to a position in the service of the Traction Company. The attempt to control the municipal legislature by corrupt influence was so

open that no intelligent citizen could fail to see it. The railway companies are by no means responsible for all of the evil, for electric lighting, telephone, paving and other interests are involved, but the railways have played an important part in the process of corrupting the public servants for their selfish ends, and they must bear their share of responsibility.

It is generally believed that the present Union Traction Company has abandoned the policy of attempting to control Councils by manipulating the political machine, and Philadelphia is thus one step nearer the realization of the hope that Mr. Bryce expressed in her behalf after describing her imposing city hall,—that "the officials who reign in this municipal palace will be worthy of so superb a dwelling and of the city where the Declaration of Independence and the Federal Constitution first saw the light."

CHAPTER IX.

The Railways and Their Employees.

Everywhere in the country street railway employees were, until ten years ago, a sadly overworked set of men. In Philadelphia, as elsewhere, each car regularly operated was manned by a driver and conductor, who remained on the car from the time it left the barn in the early morning until it had completed the day's run late at night. This meant a daily service of from fifteen to eighteen hours of continuous work with very brief respite for breakfast, dinner and supper. For this service the ordinary compensation, at the beginning of the history of railways in Philadelphia, was \$2 for the conductor and from \$1.50 to \$1.75 for the driver. This rate of wages has remained practically unchanged from the beginning to the present time, save in the rise of the pay of the man on the front of the car to a level with that of his fellow worker on the rear.

The evils of excessive hours were recognized during the early days by the public as well as by the immediate sufferers under the system. In 1864 a coroner's jury in its report on a case of fatal injury by a street car said, "Nor should we expect vigilance and attention from employees worn out by seventeen hours of incessant labor. . . . The constant occurrence of passenger railway accidents demands from this jury an unequivocal condemnation of the companies who compel men to do work to which the bodily and mental frame is not usually equal." In July, 1868, the conductors and drivers held a public meeting to urge the necessity of shortening the hours, but the companies refused to alter their schedules. It was stated at this meeting that the men were then averaging \$2 for an actual working day of 18 hours.

The agitation which developed from time to time for the

reduction of hours accomplished very little until 1886. At this time an investigation showed that the usual working day on the Philadelphia Traction system was seventeen hours, with $2 pay for the conductors and $1.75 for the drivers. A short time before, the men on this system had worked nearly nineteen hours a day, but as a conductor testified, "so many of us became sick owing to the strain of long hours and the rapid bolting of our food, and so many resigned or threatened to do so, that the Company had to revise the time table." The People's line worked their men about seventeen hours, paying both drivers and conductors $2 per day. On the Cumberland Street line the men were on duty eighteen hours. The minimum day for street railway men, revealed by the investigation, was fourteen hours. Insufficient time was allowed for meals, and very frequently, when the cars were delayed on the street and fell behind the schedule, the men were unable to leave their cars for meals, being obliged to snatch a hasty lunch while at work. A *Ledger* editorial spoke exact truth in saying, "The horses have shorter hours, more regular feeding time and better care than the men."

Wages slavery was hardly too strong a term to apply to such service wherein the whole energy of a man, physical and mental, was absorbed in earning his daily bread, while in many cases the reserve force was drawn upon so heavily day by day that utter exhaustion speedily resulted. Normal family life was impossible for the street railway men working under these conditions. "When I want to see my children," said a conductor, "I have to see them in bed. I am off in the morning before they are awake and they are asleep when I come home at night. If they want to see me in the daytime they have to wait for my car."

In 1886 a wave of labor agitation swept over the country. The wage earners, under the leadership of the Knights of Labor, united in a general movement for shorter hours, higher wages and better conditions of labor. Thorough organization lent effectiveness to their demands. At this

time the Knights of Labor, which had been in existence from 1869, grew in numbers and influence with remarkable rapidity. In 1885 it reported a national membership of 110,000. In 1886 it claimed 729,000 members. The strikes in the country, as reported by the National Bureau of Labor, increased from 645 in 1885, involving 2284 establishments and 242,705 employees, to 1411 in 1886, involving 9861 establishments and 499,489 employees.

The overworked street railway men throughout the country eagerly grasped the opportunity afforded by the general agitation to secure a more normal working day. In New York, Baltimore and other cities the men demanded ten and twelve hour days, and in several instances went on strike to enforce their demand. In Philadelphia the employees organized under the Knights of Labor and a local order, The Quaker City Protective Association, and then, with commendable moderation, they presented their case to the railway companies and to the public.

The companies resisted the movement for shorter hours until it became evident that public opinion was so thoroughly in sympathy with the very reasonable demands of the men that further resistance would be dangerous. At the beginning of the agitation several men had been discharged for taking part in the organization of the employees, but the organizers persisted, employing secret methods, and very shortly 3000 men stood ready to go on strike at the word of command. Then, on March 23, 1886, the Board of Arbitration on the part of the employees met the Board of Railway Presidents and presented their demands. They asked for the following concessions: (1) A working day of twelve hours; (2) Standard pay of $2 per day; (3) Relief from the necessity of buying uniforms, except a cap and badge; (4) The abrogation of the rule requiring drivers and conductors to clean their harness and cars; (5) An allowance of thirty minutes for dinner and fifteen minutes each for breakfast and supper; (6) The reinstatement of the men discharged for taking part in the agitation.

The Board of Presidents asked for a week to consider the matter. On April 1 another meeting was held, and after further conference the demands of the men were granted substantially as originally formulated. Thus the men obtained a reduction of hours without decrease of pay, and indeed with actual increase in some cases. They were also relieved from some of the petty exactions which had vexed them, and they obtained full recognition of their right to organize. The final negotiations were conducted in an admirable spirit of conciliation by both sides, and thus what threatened for some time to be a bitter conflict ended happily. The reduction of the barbarously excessive hours of street railway employees obtained in many other cities as well as in Philadelphia was one of the best results of the great labor movement of 1886.

During the succeeding session of the General Assembly the men attempted to render more secure the results of their victory of 1886 by obtaining the passage of an act making it unlawful for any officer of a passenger railway company to permit any person in the employ of the company "to work more than twelve hours of any one day in the service of said company; . . . provided, that all necessary labor over and above the time set by this section shall be considered overwork, for which the laborer shall receive additional compensation."[1] It will be readily seen on consideration that the act fails to afford the protection which was desired, for the proviso allowing "necessary labor over and above the time set by this section" practically nullifies the restriction which the act was intended to impose.

The employees of the Philadelphia companies rested content with the twelve hour day won in 1886 until the introduction of the trolley system and the consolidation of the companies altered conditions materially. The new system imposed much heavier responsibilities and harder work upon both of the employees who man a car. The serious

[1] Act of March 24, 1887.

results of the nervous strain upon a motorman of a rapidly moving electric car in city streets have attracted much attention from medical men, who tell us that the work on the front platform of a motor car develops a specific nervous disease. The conductor's burden is also increased by the change from the slow-going horse car to a rapid transit system, for in a given time he must handle a greatly increased number of passengers. Increase of responsibility and more arduous work naturally call for compensation in reduction of hours.

But reduction of hours did not occur in Philadelphia on the introduction of the trolley system, and as soon as the men began to feel the strain of the new work they grew restless. They began to organize. The movement attracted the attention of their employers, and in October, 1894, the employees of the Philadelphia Traction Company were warned that if they took part in a movement for organization they would be discharged. In January, 1895, President Mahon of the Amalgamated Association of Street Railway Employees of America, came to Philadelphia to promote the organization of the railway men under the Association. Soon after President Mahon's visit the local officers of the Association claimed a membership of 2000, out of a total number of about 6000 employees of the local companies. It was generally known that the men were much dissatisfied with the conditions under which they worked, and rumors of a strike were soon in the air.

In the fall of 1895 the railway companies of the city were consolidated under the Union Traction Company. Very soon after the organization of this Company the new management took two very important steps. They abolished free transfers, which had been used by about forty per cent. of the riders, and they declared war on the Amalgamated Association by discharging men who had been active in promoting the organization. The first discharges were made in October when twenty-two men were dismissed. The reason for the discharges was stated without reserve in

notices signed by the General Manager and posted in the car houses, one of the notices reading:

Conductor John Douglass is hereby discharged for pretending to take an interest in his work with the company, and yet secretly exerting his influence and taking an active interest in the affairs of the Amalgamated Association of Street Railway Employees.

J. R. Beetem,
General Manager.

The discharges had the effect of driving the men to more secret methods in the propaganda for the organization, and of precipitating their action.

October 20 a letter signed by the local officers of the Amalgamated Association was sent to the President and General Manager of the Traction Company, requesting the Company to consider the possibility of revising the schedules so that ten hours should constitute a day's work, the work to be performed within eleven consecutive hours, and the compensation to be not less than $2 per day.[1] An investigation made by the Toynbee Society soon after this time showed that although the men were nominally on duty twelve hours they were actually employed from thirteen to fourteen hours per day in many cases.

[1] In urging this consideration the men said: "The introduction of electricity for street car propulsion has brought with it greater responsibilities, labor of a more exacting and exhausting nature, and a mental and a nervous strain of such a character that the hours now fixed by law are too long to insure faithful and efficient performance of duty by the employees. We recognize this fact fully, and desiring to render the best possible service to you, our employers, beg leave to suggest the means by which we can be enabled to do so. There can be no disputing the beneficial effects of well requited toil. It is an incentive to a greater care of the company's various interests and property. By reason of shorter hours and less exacting labor we would be better able to prevent accidents and the destruction of limb, life, and property of our citizens who use the streets in the conduct of their business or as a thoroughfare.

The effect of shorter hours on the health and physical welfare of your employees will amply repay you for the small increase in outlay, if any. The return will come to you ten-fold in better work, a more careful guarding of the Company's interests, and, consequently, less damage to your property and that of the public."

This request of the employees for consideration was ignored, the General Manager declaring that the Company would not in any way recognize the Amalgamated Association.

It was very soon after these occurrences that the city was aroused to violent protest by the abolition of free transfers. The feeling against the Company was intense. A great town meeting was held December 5, in which many of the most influential citizens of Philadelphia participated. The press was almost a unit in denouncing the new policy, and in warning the Company that it was treading on dangerous ground in thus increasing the cost of transportation service to the people in face of the fact that the profits on actually invested capital were already enormous.[1] The wrath of the patrons of the Company and the condemnation of the press afforded a favorable opportunity for the presentation of the claims of the employees, which they were quick to recognize. An attempt was made to present to the mass-meeting the grievances of the employees, but the managers of the meeting declined to combine the issues of lower fare and shorter hours for the men. However, during the agitation

[1] The *Philadelphia Press* expressed a very general opinion when it said editorially with reference to the withdrawal of free transfers, "Undoubtedly some increase of revenue will be made, and, in the next few months, while stock is being worked off, much will be made of this. When the year is over this increase will be seen to be small. It will come high. Every penny of it will have estranged the public and embittered the city. Every passenger who finds his customary fare increased will cherish the wrong. Every jury will lay on damages a little heavier. Every voter at every chance will vote against the Union Traction. When paving repairs come up, future mayors will find an enthusiastic city behind them as they pile the burden on the Traction Company. *When strikes come, public opinion will favor the strikers.* Every fault in the Union Traction management will be magnified. The numerous benefits conferred by it will be utterly forgotten. . . . War is costly. The Union Traction has chosen war. Peace would be more profitable in the long run, and if the company is wise it will early retrace its steps. If it does not, a dozen years hence it will be struggling with a three cent fare, new paving outlays, and a hostile city."

over the fare question, the men made every effort in their power to get the management to consider the propositions formulated by the Amalgamated Association, and also to present their claims to the public. The Traction Company adhered to their original refusal to recognize the Association, announcing that they would listen to the grievances of employees who came to them as employees simply, but would have no dealings whatever with any organization representing the men. Meantime many men were discharged, and the employees claimed that most of them were dismissed simply because they had been reported as members of the Amalgamated Association. The policy of discharge to check the growth of the Association was a signal failure, serving only to weld the men together more closely. The organization flourished under the repressive measures attempted, and when, on December 14, President Mahon arrived to assume command, he claimed that he wielded an organization of 4500 men.

On the advent of Mr. Mahon, President Welsh, of the Traction Company, was again asked to consider the grievances as presented by the Association. No reply was made to the communication. A meeting of the employees was held on December 16, and another communication was sent to President Welsh, proposing that the entire matter in dispute be referred to an arbitration committee of disinterested citizens, "said Board of Arbitration to be composed of five men, two to be chosen by your Company, two to be chosen by our Association, and the four thus chosen to select the fifth man of said Board, and the entire matter to be submitted to this Board and their decision to be final." No reply was made to this proposition, the Company taking the position that there was nothing to arbitrate.

A strike was now seen to be imminent, and ex-Governor Pattison and Mr. Thomas Martindale were delegated by the Citizens Committee, that was attempting to secure a restoration of free transfers, to go before the Arbitration Committee of the Association and counsel the men against

radical action. The representatives of the Citizens Committee found the men in session considering the advisability of an immediate strike. They attempted to avert the threatened action, but their mediation failed, and at midnight President Mahon, having received the requisite authority from the National Executive Board, issued an order to inaugurate a strike at 4 o'clock the following morning, Tuesday, December 17. With the parting injunction from the President, "Keep away from the rum shops, keep cool and let there be nothing like rioting," a memorable meeting was adjourned and one of the most serious conflicts between capital and labor which Philadelphia has ever seen was begun.

The men promptly responded to the strike order. On Tuesday morning the Company succeeded in moving a few cars, each one heavily guarded by the police, but before noon rioting began and many cars were abandoned on the street. Long before nightfall there was a complete tie-up. The employees of the single independent line, the Hestonville, Mantua & Fairmount Company, were not involved, and this road ran uninterruptedly during the strike.

The suspension of street railway traffic in a great city is a serious matter to the public under any circumstances, but in this case the situation was peculiarly unfortunate, since the paralysis of local traffic occurred just on the eve of the holiday season when the street railway travel is ordinarily at its maximum. But great as were the annoyances and the losses incident to the suspension of travel, the public generally accepted the situation with surprising good nature. The men had reckoned largely upon popular support, arguing that the almost universal hostility to the Company, which had resulted from the abolition of free transfers and the fear of further exactions from the recently organized monopoly management, would range the people of Philadelphia on the side of the employees in the coming contest. The public responded as the men had hoped. They cheerfully walked "for conscience sake," as a popu-

lar clergyman advised them to do. They rode contentedly in antiquated omnibuses, which in the emergency reappeared on streets that had not known them for forty years, or even in uncovered express wagons with empty boxes for seats.

Even the rioting did not alienate the sympathy of the people so largely as might have been expected. The Amalgamated Association had ordered its men to keep off the streets, and when attacks on the cars began, offered to detail men to guard the property of the Company, and a large proportion of the public credited the repeated assurance of the strikers that they had no hand in the riots.

On the second day of the strike a very few cars were run under police protection. There were occasional outbreaks of violence, but they were easily suppressed by the police, who were omnipresent and most effectively handled. Meantime several organizations and individuals were striving to bring about a conference between the men and the Company in order to arrange for arbitration, but the Company refused to listen to such proposals. "We have nothing to arbitrate," they said.

The third day found the situation little changed, save in the fact that the Company was evidently succeeding in securing men to operate their cars and would apparently soon be able to resume regular schedules if assured of protection.

On the fourth day the Company sent out a largely increased number of cars. In many instances the appearance of the cars under the control of imported men provoked attack from sympathizers of the employees, and the situation became more dangerous than on the earlier days, since the men on strike were growing desperate as the Company made progress in opening its lines. Thus it was with unspeakable relief that the citizens read the headlines in the papers of Saturday morning announcing that the strike was settled. Shortly before midnight on Friday, representatives of the Christian League had borne to the men a

proposition, which they said came officially from the Company, declaring "if the men come back and return to their work and peace is restored, the Union Traction management will cordially and considerately receive any committee from the ranks of their own employees and will respectfully and kindly hear their complaints and grievances that they may offer, and will remedy the same within the range of fairness." After some hesitation the proposition was accepted by the men, and the strike was declared off.

But the rejoicing was brief, for when the men reported for duty Saturday morning they were met by an announcement from President Welsh that the Company was under obligation to keep a thousand men that had taken the places of the strikers, and therefore could take back at once only 3500 of the 4500 men who had gone on strike. The gentlemen who had acted in good faith for the Traction Company in negotiating a settlement had labored under a misunderstanding. The men refused to go back unless all were reinstated, and thus early on Saturday morning the strike was again declared on.

For three days more the people of Philadelphia were denied transportation privileges and were kept in constant apprehension of violence. Then on Monday night, December 23, after seven days of contest, the Traction Company and their employees came to terms. The strikers gained a recognition of their right of organization and a consideration of their grievances, but the company declined to discharge the men taken on during the strike, and, moreover, sustained their position of refusal to treat with the Amalgamated Association, the final agreement being made with a committee purporting to represent the employees of the Union Traction Company simply. The agreement on the part of the Company was as follows:

"1. We do not propose to govern the membership or connection of any employee with any lawful association; but such connection with such association of any character whatever must not enter into the relations between em-

ployees and the company, and cannot be recognized in the business conducted between us.

"2. That any grievance of whatever character that any man or men may have will always be considered fairly and promptly before such men and the officers of the company, and the company will afford such men an opportunity to examine the records of such employees to their entire satisfaction.

"3. We accept your statement that all men discharged since December 10, 1895 (except those discharged for just cause), will be reinstated upon examination of the records of such employees. The committee representing the employees to furnish the list of names of those they believe to have been unjustly discharged; and the men allowed to divide the runs, other than the runs laid out for the present employees, meaning those who have entered our services since the evening of December 17."

This agreement was brought about by the earnest efforts of disinterested citizens, Mr. John Wanamaker being the most prominent man in the later negotiations.

The result of the conflict was variously interpreted. *The Inquirer*, a paper friendly to the men, declared, "the Company has virtually surrendered," while the *Evening Telegraph* quoted the famous saying of the redoubtable John Phoenix, "I held the enemy down with my nose firmly fixed between his teeth," as expressing the situation with reference to the claim of the employees that they had won the fight.

But the trouble was not yet at an end. Within a few days the men charged the Company with bad faith, and claimed that the agreement of December 23 was being violated in spirit if not in letter. Meantime the employees had been seriously weakened by quarrels among their leaders. On Friday, January 3, a second strike was ordered. The strike was declared by President Mahon to be without due authorization, and in consequence few of the men responded. The strike was over by noon and the cars were running on schedule time.

The failure of the second attempt to strike, and the resulting disorganization, increased the dissatisfaction. The men grew more and more restless. They charged that the Company was discriminating against the old men by giving them the least desirable runs, and, moreover, that many of those who were prominent in the strike were being discharged without cause. In addition, they claimed that the Company was obliging the new men to sign an agreement to refrain from joining a labor organization. They also complained that they saw little prospect of achieving the reduction of hours for which they had engaged in the original strike. Relations became more and more strained, until by the middle of January it looked as if the men were about to go on strike again. A Committee of Six was finally appointed with instructions to secure definite assurance of redress of grievances or to order a strike.

Recognizing that the situation was serious, some of Philadelphia's best citizens intervened. Largely through the efforts of the Universal Peace Union, a Citizens Committee was appointed and a conference arranged with the officials of the Union Traction Company. It was then agreed that a Board of Conference should be created to consider the difficulties between the Company and the men. The Board was constituted of six representatives of the Union Traction Company, six representatives of the employees and six disinterested citizens. The six citizens were Archbishop Ryan of the Roman Catholic Church, Bishop Whitaker of the Episcopal Church, Bishop Foss of the Methodist Church, George Griffiths, Secretary of the Christian League, John E. Baird and John Sparhawk, Jr. The Board organized on January 16, and proceeded to a full consideration of the controversy. The employees were ready to agree to make the Board a court of arbitration and to bind themselves to accept the decision, but the Company refused to accede to this proposition. Thus the Board sat simply as a council of conciliation. The employees asked the Board to approve the following demands of the men:

1. Reinstatement of all employees discharged without just cause since December 10, 1895.

2. Restoration of old employees to their former runs.

3. A ten hour day with a daily wage of not less than $2.

4. The unquestioned right of organization.

5. Readjustment of pay of employees on sweepers, snow ploughs and of "trippers."

6. Receipt to conductors for money deposited each day, to avoid disputes over shortages.

The officials of the Company stated their case, and then the citizen section of the tripartite commission was entrusted with the duty of making recommendations. On Saturday, January 18, the citizens section submitted their report. They recommended the reinstatement of the men discharged because of membership in labor organizations, and future non-interference with labor organizations on the part of the Company. They begged the "generous consideration" of the Company for the request of the men for a ten hour day, but declared themselves incompetent to make a specific recommendation on this main issue of the contest. They further declared that they considered protection for motormen by vestibules as "absolutely essential," and welcomed the assurance of the Company that experiments were in progress to determine the best method of protecting the motormen on the front of the cars.

The officials of the Company agreed most cordially to accept the recommendations of the Commission and promised to do all in their power to carry out the suggestions offered. The men also assented to the terms of settlement, and so, after a month of conflict, peace was restored.

At the present moment the schedules have been revised so that only in a few instances do the working hours exceed twelve, while in many cases they are a few minutes less than that time. The pay is at the rate of 16⅔ cents per hour for regular runs, and ranges from about $1.80 to $2.15, although the pay for "trippers" is, in some cases, as low as $1.15 per day. Vestibules have not been provided for the motormen.

The men are far from satisfied with their condition. They feel that the strain of the twelve hour service is a great hardship and are bitterly disappointed at their failure to secure the coveted ten hour day. Moreover, they have certain minor grievances, such as the lack of protection to motormen during the winter. But they seem to feel, on the whole, that there is no immediate possibility of remedying the evils of which they complain. They are utterly disorganized at present and unwilling to reorganize. They say that under present conditions an organization could accomplish nothing, since a strike would be hopeless with so many unemployed men to take their places. In an appeal recently issued they call attention to the hardships of long hours in the cold, and, asserting their own helplessness, beg the assistance of the public in securing a ten hour day and the enclosure of the front platforms.

There is a very general feeling in the community that the present working day is too long for the wellbeing of the men and for the safety of the public, and it is possible that Councils may be moved to exercise their power of control to reduce the hours. Such action would seem to be a very reasonable exercise of the police power, since the lives and property of citizens are unquestionably endangered by allowing an overworked motorman to run a car through crowded city streets.

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Municipal League Tract, No. 1. The City of Philadelphia; its Stockholders and Directors. By Charles Richardson. March, 1893. 15 pp. A discussion of the railways in relation to the city, showing that the profits of the companies have been very large, that, nevertheless, they have neglected their obligations, and proposing a campaign for better Councils to guard the public interest.

Watson's Annals of Philadelphia. Vol. III, p. 488. A few notes on the early history of the railways.

Scharf & Westcott. History of Philadelphia. 1884. Vol. III, pp. 2220-2205. Gives a very brief sketch of the history of street railways in Philadelphia, apparently as a background for biographies of prominent railway organizers.

Easton. A Practical Treatise on Street or Horse-Power Railways. Philadelphia, 1859. 140 pp. An interesting view of street railways at the very beginning of their development.

Report of the Committee Appointed to Secure the Colored People in Philadelphia the Right to the Use of the Street Cars. May, 1867. 8 pp.

Why Colored People in Philadelphia are Excluded from the Street Cars. Published anonymously, in 1866. 29 pp.

The Trolley System. Stenographic Report of Testimony of Experts and Arguments of Messrs. Shapley and Johnson. Allen, Lane & Scott, 1892. 138 pp. Presents the arguments in favor of the trolley system.

Objections to Overhead Electric Systems. 1892. An argument in opposition to the introduction of the trolley system. 24 pp.

The Overhead Electric Trolley Ordinances. Addresses in Opposition to their Passage. March, 1892. 82 pp.

Toynbee Society of Philadelphia, Pamphlet No. 1. The Philadelphia Trolley Companies and their Employees. December, 1895. 18 pp.

Files of the newspapers. The foregoing bibliography shows that the special literature of local street railway questions is very meagre. There has been much discussion of the financial and political aspects of the railways during the past ten years, but this discussion has taken permanent literary form only in the newspapers. Thus the files of the newspapers become a most important source for such a study as the present.

APPENDIX.

I. ORDINANCE OF 1857.—II. FORM OF RECENT ORDINANCES GRANTING TROLLEY PRIVILEGES.—III. STREET RAILWAY ACCIDENTS.

I. Ordinance of 1857.

Section 1. The Select and Common Councils of the city of Philadelphia do ordain that all passenger railroad companies within the city of Philadelphia shall be subject to the restrictions, limitations, terms and conditions hereinafter provided; and any such company, before entering upon any road, street, avenue or alley within the limits of said city, shall be understood and deemed to be subject thereto, upon the conditions hereinafter prescribed.

Sect. 2. (Makes certain technical requirements with reference to grades, style of rail, etc.)

Sect. 3. That all railroad companies, as aforesaid, shall be at the entire cost and expense of maintaining, paving, repairing and repaving that may be necessary upon any road, street, avenue or alley occupied by them. That for the convenience of the public it shall also be the duty of such companies to clear the streets, or other public highways that they may occupy, of snow or any obstructions placed therein by such companies, when the same impedes the travel upon said highways, and for any neglect on their part to do so for a period of five days, they shall be punishable by a fine of twenty dollars for each square that may be so impeded, recoverable before any alderman of the city of Philadelphia, and payable into the city treasury, upon a complaint of five citizens residing therein, upon oath or affirmation: provided, nevertheless, that whenever any such company shall deem it expedient to use their said road during the continuance of

the snow they shall provide comfortable sleighs, or other suitable vehicles, for the transportation of passengers along the route of their railway at the usual rates as aforesaid; then, and in that case, no such penalty shall be recoverable.

Sect. 4. That it shall be the duty of any company, as aforesaid, when requested so to do by the Chief Commissioner of Highways to remove any obstruction, mend or repair their road, pave or repave the highways, as hereinbefore provided, and should they refuse or neglect to do so for ten days from the date of such notice, then and in such case the Councils may forbid the running of any car or cars upon the said road until the same is fully complied with; and the city reserves the right in all such cases to repair or repave such streets, and the expense thereof shall be a judgment upon the road, stock and effects of such company, recoverable as judgments are now recoverable by the city of Philadelphia.

Sect. 5. It shall be the duty of said company or companies to employ careful, sober and prudent agents, conductors and drivers to take charge of their car or cars when upon the road, and for the violation of any act of Assembly, or ordinance of the city, on the part of any such officer or officers, or employees upon said road, the company shall be liable to all fines, forfeitures or damages therefrom; provided, however, that this act shall not be taken to excuse or free any such officer or employee from the penalties or responsibilities of any such violations, or other acts by them committed.

Sect. 6. (An unimportant provision regulating the running speed of the cars and requiring notice of approach of cars.)

Sect. 7. It shall be incumbent on all railroad companies, as aforesaid, before placing cars upon their road, to pay into the office of the Chief Commissioner of Highways, and annually thereafter, for the use of the city, the sum of five dollars for each car intended to run on the same. They shall also have the number painted in some conspicuous

place upon each car; and any omission or neglect to comply with either of these provisions shall be punishable by a fine of ten dollars, to be recovered on complaint before any alderman of the city, who shall pay the same forthwith into the city treasury.

Sect. 8. The directors of any such company or companies shall immediately after the completion of any passenger railroad in the city, file, in the office of the City Solicitor, a detailed statement, under the seal of the company, and certified under oath or affirmation by the president or secretary, of the entire cost of the same; and the city of Philadelphia reserves the right any time to purchase the same, by paying the original cost of said road or roads and cars at a fair valuation. And any such company or companies refusing to consent to such purchase shall thereby forfeit all privileges, rights and immunities they may have acquired in the use or possession of any of the highways as aforesaid. . . . .

Sect. 9. Any passenger railroad company which is now or may hereafter be incorporated in the city of Philadelphia, shall, by their proper officer or officers, who shall sign the same, file in the office of the City Solicitor a written obligation to comply with the provisions of this ordinance: provided, that no railroad company now incorporated shall be authorized to commence work upon any of the highways of the city until this section shall be complied with; and any failure to do so for ten days shall be taken and deemed as a refusal on the part of such company; and in case the Philadelphia and Delaware River Railroad Company should fail to comply with the provisions of this section on or before the eighth of July, proximo, the City Councils hereby express their disapproval of an act, entitled "A Supplement to an Act to incorporate the Philadelphia and Delaware River Railroad Company," approved June 9, 1857, which provides for the construction of a passenger railway, by a private corporation, over Fifth and Sixth streets, in the city of Philadelphia.

II. Form of Recent Ordinances Granting Trolley Privileges.

Section 1. The Select and Common Councils of the city of Philadelphia do ordain, that permission is hereby granted to the .... Passenger Railway Company to occupy the following streets and to use electric motors as the propelling power of the cars on the tracks of said Company which are hereby authorized to be laid as follows: ....

....

Sect. 2. Said motors to be supplied from over-head wires, supported by iron poles, not less than twenty feet high, which the said company is authorized to erect and maintain, and to be placed opposite each other within the curb lines, and connected with the street wires, or at the option of the company to be erected in the middle of the street with a double bracket thereon suspending the overhead construction. The same to be of the kind, style and system as that now constructed by the Catherine and Bainbridge Streets Railway Company, and all feed wires shall be buried.

Sect. 3. Before any permits shall be issued by the departments of the city of Philadelphia to proceed with the work of constructing the railway and trolley system authorized by this ordinance, the said railway company shall enter into an agreement or contract with the Mayor of the city (who is hereby authorized to execute the same on behalf of the city), which agreement or contract shall be in form approved by the City Solicitor, and shall among other things provide: That the said railway company shall agree to keep and maintain in good order at all times, whether paved, macadamized or unimproved, all streets, avenues or roads traversed by its lines of railways, or by its trolley system; that the said railway company shall agree to accept as binding upon it the terms and conditions of all laws and ordinances now in force, or which may hereafter be passed, relating to the government, control or regulation of railways or railroads of any

kind within the city of Philadelphia. That in the construction and equipment of its roadbed, cars and its trolley system, all kinds and character of materials, supplies or workmanship, plans, profiles, elevations, designs, etc., shall be subject in every way at all times to the approval and inspection of the Departments of Public Works and Public Safety. That the said company shall take down and remove the overhead trolley system whenever directed to do so by ordinance of Councils; that the said railway company shall run cars over their entire line at intervals not exceeding five minutes between the hours of 6 and 9 A. M. and 5 and 8 P. M., and at intervals not exceeding ten minutes at all other hours of the day, excepting between the hours of 12 midnight and 5 A. M., when they shall run at least every hour. The rate of fare to be charged for a single continuous ride over the entire line shall not exceed five cents; that the railway or trolley system herein authorized shall be so built and erected as not to interfere with the building or erecting and operating of an elevated railway or railroad on any of the streets or avenues herein named; that work upon the said railway or trolley system shall be begun within ten months, completed and in operation over the entire route herein named within three years, and that said railway company shall furnish and execute a bond in the form approved by the City Solicitor, and with security approved by the Mayor, in the sum of twenty-five thousand (25,000) dollars, conditioned upon the faithful execution and carrying out of all the terms and conditions of this ordinance and the agreement or contract herein authorized, which bond is forfeited to the city, and the money shall be paid into the city treasury if the said railway company shall default in its agreement.

Sect. 4. That the said company shall, under the supervision of the Department of Public Works, repave in good, substantial and workmanlike manner, with Belgian blocks, or other improved pavement, as directed by ordinance of Councils or by the Director of the Department of Public Works, and to be done in a manner to be prescribed by and

to the satisfaction of the said Department, all streets to be occupied by it not already paved with such improved pavement, and also all other streets heretofore repaved with an improved pavement, the repaving of which is not satisfactory to the said Department, said repaving to be done from curb to curb for such length of street as shall be occupied by poles and trolley wires, or by other electric motive power system. Such repaving shall be commenced upon each of the said streets as soon as the construction of the roadbed or of the poles or trolley wires, or other electric motive power system shall be commenced thereon, and shall be pushed and completed with all reasonable and proper diligence as rapidly as such system is being constructed in said streets, or as Councils may by ordinance otherwise direct; if not thus pushed, the Director of the Department of Public Works may enter upon the streets and complete the same at the expense and cost of the said railway, trolley or other electric motive power company constructed therein; and that said company shall at all times hereafter keep the said paving in good repair when directed to do so by the Department of Public Works, so long as the said trolley or other electric motive power system shall be maintained on such streets: *Provided*, that such repaving or repairing aforesaid shall not free the said company from any other paving, repaving and repairing the streets occupied by it that may be required by any ordinance of Councils that has been passed, or from any other duty or obligation resting upon it regarding paving and repairing that is incumbent upon it under and in virtue of any act of Assembly; and that fifty dollars shall be paid into the city treasury by said company for the printing of this ordinance.

III. Street Railway Accidents.

The following table gives the total number of accidents caused by street railways from 1861 to 1884 inclusive, the totals being given for five year periods. The figures are taken from the reports of the companies to the Auditor-General and the Secretary of Internal Affairs. The table ends at 1884 because the figures for several years after that time are incomplete. The Philadelphia Traction lines made no report from 1885 to 1891.

	Killed.	Injured.	Annual average of fatal accidents.
1861-1864	29	44	5.8
1865-1869	50	87	10.0
1869-1874	56	80	11.2
1874-1879	38	97	7.6
1879-1884	59	171	11.8

The increase of accidents caused by the introduction of the trolley system in 1892 appears in the following table. The statement of fatal accidents is from the records of the Coroner's office and is reliable. The statement of cases of injury is from the reports of the Secretary of Internal Affairs, and is probably only partial.

	Killed.		Injured.
1891	18	1891-92	210
1892	31	1892-93	197
1893	35	1893-94	243
1894	67	1894-95	379
1895	65		
1896	66		

VI

DANIEL RAYMOND

An Early Chapter in the History of Economic Theory in the United States.

JOHNS HOPKINS UNIVERSITY STUDIES

IN

HISTORICAL AND POLITICAL SCIENCE

HERBERT B. ADAMS, Editor

History is past Politics and Politics are present History.—*Freeman.*

FIFTEENTH SERIES

VI

DANIEL RAYMOND

An Early Chapter in the History of Economic Theory in the United States

BY CHARLES PATRICK NEILL, A. M.

Instructor in Economics in the Catholic University of America.

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DANIEL RAYMOND

AN EARLY CHAPTER IN THE HISTORY OF ECONOMIC THEORY IN THE UNITED STATES.

INTRODUCTION.

The net result of a study of the history of economic science in the United States during the first century of our national existence has been summed up thus:

"Not only has no American school of writers on political economy been established, if we except that which we are about to notice (Henry C. Carey and his several disciples), but no recognized contribution to the development of the science can be pointed out in any way comparable to those made by the French writers, or to those which the Germans are now making."[1]

"The general result then to which, as we believe, a sober examination of the case must lead any candid inquirer, is that the United States have, thus far, done nothing towards developing the theory of political economy, notwithstanding their vast and immediate interest in its practical applications."[2]

Despite this foreshadowing of negative results, the present study was begun in the belief that a further investigation into the history of economic science in the United States would not be without scientific interest. Had this country produced no economic writers at all, the causes of such barrenness would have invited inquiry; and if we have produced writers, and these have been without influence on the development of the science, the why of this is also worthy of study.

The results of the present study would seem to indicate that perhaps American writers have exerted an influence upon

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[1]North American Review, January 1876, p. 137. Dunbar, Economic Science in the United States, 1776-1876.

[2]*Ibid.*, p. 140.

the development of the science to an extent that has not heretofore been conceded.

The general history of economic science has been divided into the fragmentary period, in which isolated discussions of economic topics are found scattered about in the writings of thinkers in other fields; the period of monographs and empirical systems; the constructive period, in which systematic treatises appear, essaying the presentation of a complete science; and the critical or analytical period.[1] Although the appearance of the United States in the family of nations was subsequent to the beginning of this third period—or, perhaps, coincident with it—the history of the development of the science here, or rather of its development at the hands of American writers, reproduces the phases marked in its general history.

The year 1820 may be said to have ushered in the third period in the United States,[2] with the publication of a treatise on political economy from the pen of Daniel Raymond, of the Baltimore bar; and it is of this writer and his work that the present monograph purposes to treat.

The importance of Raymond's work is not alone in that it is the first systematic treatise on economics from the pen of an American, but also in that it shows the influence of American conditions, and in consequence presents a theory of political economy opposed at all points to the prevailing system as developed by the dominant school of Adam Smith.

Before dealing with the work of Raymond, it may not be amiss to sketch in brief the condition of economic thought in this country during the period preceding his appearance as an economist.

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[1]Cossa, Introduction to Study of Political Economy.

[2]"Down to the year 1820 no American produced any treatise on political economy which the world has cared to remember." *N. A. Rev.*, January, 1876, p. 134.

"There is no American treatise on the subject, ——. The only American book that has the semblance of a treatise on political economy is Hamilton's reports as Secretary of the Treasury." Raymond, 1st ed. (1820), p. 5.

CHAPTER I.

Early Economic Thought in the United States.

In a new country, as was the United States of a century ago, with meager facilities for education—and that education dominated largely by the classics—with crude social conditions, and, in consequence, little leisure or inclination on the part of the people for abstract study or speculative thought, one does not expect to find any extensive knowledge of the principles of the new science of economics, or any very profound interest taken in its study. If this knowledge or interest were to be looked for anywhere, it would be amongst the statesmen of the day; for politics had very largely absorbed the best intelligence of the time, the upbuilding on permanent lines of the new political structure demanded attention to basic principles and not shifting expedients, and the most important and most fiercely contested political issues of the day were distinctively economic. But even the architects of our political and industrial system do not seem to have depended much on the light that a study of the rising science might have afforded them, nor do they seem to have been much influenced by arguments drawn from it.

Franklin had indeed in his speculations discussed numerous economic topics, and by some of his reviewers he has been reconstructed into an economist worthy of his time;[1]

[1] Wetzel, Benjamin Franklin as an Economist, J. H. U. Studies.

but a less admiring critic has given the weight of his authority to the proposition that Franklin "not only did not advance the growth of economic science, but he seems not even to have mastered it as it was already developed."[1] From Franklin to Alexander Hamilton no public man seems to have displayed any grasp of economic principles sufficient to have made him worthy of note on that account.[2] Hamilton in this respect stands out in bold relief amongst his fellows, and yet his mastery of the best economic thought of his day, and his skill in expounding and applying its principles, does not seem to have enabled him to win over ready assent to his measures. His plan for a national bank as a fiscal aid to the government and a regulator of the currency was made possible rather through a "deal" of the sort termed "practical politics," than as a result of economic thinking; and his protective measures only became a national policy long years after his report on manufactures, and then only as the result of new developments, and not in direct consequence of his writings. The political rather than the economic bearing of measures was the influence that determined legislation. Were they centralizing or decentralizing?—this was the aspect that appealed to the men who were fashioning the new republic. With their minds haunted by this all important question, they were little likely to be influenced by the principles of Adam Smith's new science. It might be useful as lending added support to theories already accepted on other grounds; but it would scarcely win assent to its principles from those to whose minds political considerations had already given an opposite trend.

The study of economic science made headway slowly at first. An American edition of Adam Smith had made its appearance at Philadelphia as early as 1789.[3] Two decades seem to have elapsed before there was a growth of interest in

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[1] Prof. Dunbar in *N. A. Rev.*, January, 1876, p. 130.

[2] *Ibid.*, p. 131.

[3] Catalogue of Baltimore Athenaeum Library, 1827.

the science sufficient to warrant another edition. A second reprint appeared from Hartford in 1811, and a third from the same place in 1818. Interest seems to have been awakening about this time, for in 1819, only two years after its appearance in England, Ricardo's "Principles" was reprinted at Georgetown, and a translation of Say appeared from the same place in 1821, and was quickly followed by a second edition.[1] Cossa implies[2] that these reprints were partly, if not largely, for use in the schools, but at this time political economy had found place in college curricula only in a few instances, and not by any means to an extent to have called for such a multiplication of text books. It is more likely that the rising sentiment for a protective system was attracting interest to economic principles, and that the advocates of free trade were becoming zealous not only in the study of their master, but also in placing within easy reach of their dissenting brethren authentic copies of the creed of true believers.[3]

Jefferson, who had been exposed to the infection in France, was very much interested in the science of political economy, and very earnestly bent on stimulating the study of it among his fellow-citizens. Through his efforts "A Treatise on Political Economy," by "Count Destutt Tracy, member of the Senate and Institute of France, and of the American Philosophical Society," was translated from the original French manuscript, and published at Georgetown in 1817. Jefferson regarded this author as "the ablest writer living on intellectual subjects;" and when the book issued from the press, it was prefaced by a letter from Jefferson, in which he indulges the hope that its merits will win for it a "place in the hands of every reader in our country," and

[1] Carey, Biographical Sketches, p. 9.

[2] Introduction to the Study of Political Economy, p. 466.

[3] In marked contrast to the inactivity of their opponents, the free traders were at this time active propagandists. *Cf.* Mathew Carey, Biographical Sketches.

says that it is his "hearty prayer" that it may be made the elementary book of instruction in the science.[1]

After its publication, John Adams wrote of this book: "Upon the subject of political economy at large, I know of nothing better."[2] Yet notwithstanding that the work could elicit such high praise, Jefferson had been for five years trying to secure a publisher for it before his efforts bore fruit.[3] The book dealt with abstract principles, and was metaphysical; it was consequently of little avail as a weapon for political strife; and it was this latter aspect of a work on political economy that determined its popularity.

Jefferson's efforts to spread a knowledge of economic principles among his compeers were not, on the whole, encouraging; and from some of his letters we may glean his opinion of the condition of the science in this country in his day.[4]

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[1]It was originally intended that this work should be first published in this country, on account of the author's fear of incurring the displeasure of Napoleon should it come to his notice. Though Jefferson arranged for its publication here, his name was not to be publicly connected with the work, as the author was prepared to deny its authenticity, in case it should come to the notice of Napoleon. But before a publisher could be secured here, Napoleon had been deposed, and the work appeared in France before it issued from the press here. Jefferson's Works, edited by H. A. Washington, Vol. VI., p. 568; Vol. VII., p. 39.

[2]A's works, Vol. X., p. 385.

[3]J's works, Vols. VI.-VII.

[4]To Dupont de Nemours, Feb. 28, 1815:

"With sufficient means in the hands of our citizens, and sufficient will to bestow them on the government, we are floundering in expedients equally unproductive and ruinous; and proving how little are understood here those sound principles of political economy first developed by the economists, since commented and dilated by Smith, Say, yourself, and the luminous reviewer of Montesquieu. I have been endeavoring to get the able paper on the subject, which you addressed to me July, 1810, and enlarged in a copy received the last year, translated and printed here in order to draw the attention of our citizens to the subject; but have not as yet succeeded. Our printers are enterprising only in novels and light reading. The readers of works of science, although in considerable numbers, are so sparse in their situations, that such works are of slow circulation. But I shall persevere." *Ibid.*, Vol. VI., p. 429.

During the first thirty years, then, of our national existence little attention seems to have been bestowed upon the study of economic science. An interest in it begins to show itself in the closing years of the first quarter of the present century. The philosophy of that day had everywhere taken for its shibboleth "Liberty, Freedom;" and in a country such as ours, which had so recently freed itself—after much sacrifice—from being too much and too capriciously governed, which had, within the memory of citizens not yet old, been regarded merely as territory to be exploited as best suited the interests of the classes controlling the "home government," it was only natural that the philosophy of individualism should find a congenial soil, and that the colonists, become citizens, should look askance at government, watch with jealous eye its every expansion of function, plan to hedge it about with restraints, and take kindly to the doctrine of *laissez faire*. Accordingly, then, when an interest in economic science begins to awaken here, there is a predisposition to accept the system of Adam Smith, to cling to it as the teaching of wisdom, and to erect it into the creed of orthodoxy. Such was the status of economic science in the United States when the first American treatise on the subject appeared.

To Dupont, May 15, 1815:

"The newspapers tell us that you are arrived in the United States. . . . . . . You will now be a witness to our deplorable ignorance in finance and political economy generally. I mentioned in my letter of February that I was endeavoring to get your memoir on that subject printed. I have not yet succeeded." Vol VI., p. 458.

To M. Carrea de Serra, Dec. 27, 1814:

"I have received a letter from Mr. Say, in which he expresses a thought of removing to this country. . . . . Mr. Say will be surprised to find, that forty years after the development of sound financial principles by Adam Smith and the economists, and a dozen years after he has given them to us in a corrected, dense, and lucid form, there should be so much ignorance of them in our country; that . . . we are trusting to tricks of jugglers on the cards, to the illusions of banking schemes for the resources of the war, and for the cure of colic to the inflation of more wind." Vol. VI., p. 406.

CHAPTER II.

Daniel Raymond and His Work.

Daniel Raymond (1786-1849) was a native of Connecticut. He prepared himself for the bar in the law school of Tapping Reeve, at Litchfield, Conn.,[1] and in 1814 appears as a member of the bar of Baltimore.[2] He had brought with him to the land of his adoption the New England hatred of its peculiar institution, and in 1819 he came before the public in a pamphlet on the "Missouri Question."

In 1820 he essayed a more ambitious role, and gave to the public his "Thoughts on Political Economy" (Vol. I., pp. 470). This was the first systematic treatise on the subject to be written by an American,[3] and it may not be without interest to know what led to his taking up the subject. Raymond's own explanation is frank, and sufficiently modest. The public permitted him many moments of leisure in his profession; poring over "musty law books" had grown a weariness of the flesh; idleness too was irksome; and for mere diversion he set about putting on paper his thoughts on political economy.[4] As he wrote his subject developed

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[1]Federal Gazette and Balto. Daily Advertiser, Dec. 26, 1823.

[2]Records of the Superior Court, Baltimore.

[3]Supra, p. 2.

[4]"The following sheets were written to please myself—my principal object in writing them, was employment. The public has not seen fit to give me constant employment in my profession, otherwise this book had never been written. I had read musty law books till I was tired. Idleness was irksome, and I sought relief in putting on paper some of my thoughts on political economy. If the public shall think this a sufficient justification for writing a book, it is well; if not, I cannot help it. I have no other to offer.

"As to my inducement for publishing it, I know not what to say. . . . . . The best excuse I can allege for publishing is, that it pleased me so to do, and one feels a sort of satisfaction in doing as he pleases, without consulting any one." Preface to 1st ed. p. 1.

in his mind beyond anticipated proportions;[1] and then, to please his whim, he put his notes into the hands of the printer. He styles his book "Thoughts on Political Economy;" he does not send it out as a "general treatise on political economy;" he modestly professes his inability to write such a treatise; and the only merit to which he lays claim is that of a pioneer in the attempt to shake off the domination of "foreign theories and systems of political economy," and develop in their stead a system suited to America."[2]

Raymond's system was strongly antagonistic to the prevailing individualistic philosophy; it leaned to governmental interference in opposition to *laissez faire,* stood for protective tariffs, decried banks and paper money, and hurled anathemas at slavery as an economic evil, an abomination before the Lord, and a curse alike upon enslavers and enslaved. It thus touched upon sorely vexed questions of the day over which the fiercest political contests were being waged; and in consequence it was only to be expected that it would win enthusiastic admirers on the one hand, and harsh critics on the other—each equally biased and one-sided in their respective estimates of the work. Discriminating judgment was hardly to be looked for.

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[1]"At the time this book was commenced, I had no expectation of writing more than a small pamphlet, and of this I scarcely anticipated a publication. As I have said before, I wrote rather for my own amusement and instruction, than for the public; but as I progressed the subject became more interesting—new views and ideas suggested themselves—and I pressed onward until it has grown to a volume." P. 469.

[2]"I am far from supposing that this book can properly be demoninated a general treatise on political economy. I do not profess to be able to write such a book. All I say is that it is a more general treatise than any that has to my knowledge been written in our country, and all the merit I claim for it, on this account, is, that of having made an humble effort to break loose from the fetters of foreign authority; from foreign theories and systems of political economy, which from the dissimilarity in the nature of the governments, renders them altogether unsuited to our country." Preface to 1st ed., pp. V.-VI.

The *North American Review*[1] devoted twenty-three pages of its space to Raymond's work. The reviewer[2] is a free trader and worships at the shrine of Adam Smith. As a heretic Raymond calls out his severest condemnation. The criticism is caustic,[3] and the reviewer has on his "learned sock." He essays to write profoundly, but gets no farther than irrelevant quibbles and pedantic dialectic; he misses the real importance of Raymond's work, its significant characteristic escapes him entirely.

The *National Recorder*, of Philadelphia, a journal professing to speak authoritatively on the subject of political economy, adds the weight of its disapproval. It deprecates the intrusion into the economic field of a man bred to the profession of the law, and seems to think the shoemaker would best stick to his last.[4]

The *National Gazette*,[5] of Philadelphia, concedes to Raymond "a nice discernment and a marked capacity for the investigations in which he has engaged;" but it cannot forgive him for "an extravagant disparagement of the great lights of the science which he treats, and an overweening confidence in the superior justness of his own perceptions, and the superior acuteness and solidity of his own reasonings,"—a criticism to which Raymond had undeniably laid himself open.

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[1]April, 1821, Vol. XII.

[2]F. C. Gray, LL. D., an attorney of Salem, Mass.

[3]"It would have been no derogation from the merit of this work had it appeared before the public with humbler pretensions. It . . . . lays claim to complete originality. . . . . . . The science of political economy is so little an object of popular attention, and has really made so much progress unobserved by the community, that the student on first engaging in it, is apt to be astonished at the result of his inquiries, and to fancy that what is so new to him must be new to others. But in this as in other pursuits, the boast of superior wisdom does not arise from an excess of knowledge so often as from a want of it."

[4]*Cf.* Fed. Gaz. and Balto. Daily Ad., January 31, 1821.

[5]January 12, 1821.

The prophet, however, was not without honor in his own country, which, in this instance, is interpreted to mean Baltimore.

Niles' Register,[1] of Baltimore, strongly protectionist, pronounces favorable judgment upon the work, and "can recommend it to the consideration of those who are desirous of information upon this important subject, as well worthy of attentive perusal."

The *Federal Gazette and Baltimore Daily Advertiser*[2] thinks the work "evinces considerable talent, deep research, and attentive and judicious consideration of the subject," and that it is "highly honorable to the author, and worthy of the attention of our fellow-citizens." The *Gazette*, with commendable local pride, also takes up the cudgel in defense of its fellow-townsman against the attacks of its Philadelphia contemporaries, which, it alleges, are inspired by hatred of everything that comes out of Baltimore.

Farther from home Raymond's work found even more enthusiastic admirers,—in the protectionist camp. The *Patron of Industry*, a journal published in New York, wearied, probably, by "the servile homage to the theories put forth in the name of political economy in Europe," waxed enthusiastic and hailed the work as an honor to the author, his subject, and his country.[3]

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[1] Dec. 16, 1820.

[2] Dec. 13, 1820.

[3] "We took up this work in the anxious hope that the author, whether right or wrong in his system, was in point of talents worthy to be the author of the first formal treatise upon the subject of Political Economy on this side of the Atlantic, and that he had sufficient courage to take the field against the spirit of servile homage to the theories put forth in the name of political economy in Europe from the period of the economists down to the present day.

"The perusal of the work did not disappoint us in these particulars. The writer has given evidence, not only of talents adequate to his undertaking, but of a disposition to employ the powers of his mind in simplifying and rendering clear and perspicuous what others have treated obscurely, and rendered inconsistent and incomprehensible. The book cannot only be read without fatigue, but it can be under-

Frederick Beasley, provost of the University of Pennsylvania, wrote encouragingly to the author, to express the gratification that he as an American felt in a countryman who displayed "such just and profound comprehension of his subject."[1]

John Adams, from his retreat at Montizello, writes that he regards it as the best work that has appeared on political economy, and "a proud monument of American literature;" and he purposes constituting himself its propagandist.[2]

Mathew Carey, then bearing the heat and burden of the battle for protection, and delighted to find a brother pro-

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stood. The writer has treated his subject far more scientifically than his predecessors, not merely in his divisions and definitions, but also in his precision in the use of words, and in the employment of technical terms and phrases.

"As to the doctrines taught in this book they are to a considerable extent new; and in most part they differ from the old ones to which they stand opposed, we think very much as nature differs from art, truth from fiction and light from darkness. There are several fundamental points, concerning which the various writers in political economy have been most bewildered and inconsistent, which by starting right and reasoning right, he appears to us to have extricated from the confusion by which they have so long been embarrassed. Such are the nature of national wealth—labor, productive and unproductive, standard of value, source and cause of national wealth, mercantile system, &c., &c. We have no hesitation in saying, that we think he has thrown more light on several of these questions than all the other writers who have meddled with them.

"We should have liked his preface well enough if it had not been in the front of his book. It does not fairly introduce the reader to the acute, logical, and philosophic mind which is spread over the succeeding pages. We know nothing of the author; but we hail his work as an honor to himself, his country and his subject."

[1]"I have read it with close attention, and I cannot refrain from expressing to you the pleasure it has given me. Amidst the false tastes and crude productions of the times, it is a real gratification to an American, who has at heart the literary reputation of his country, to find a writer who displays such clear views, just and profound comprehension of his subject, and such neatness and perspicuity of style." *Cf.* preface to Raymond's 4th ed.

[2]"Although reading is almost an intolerable imposition upon my eyes, yet I have read this volume through, and have been richly re-

tectionist, pronounces "Raymond's political economy a work far superior" to either Smith's Wealth of Nations or Say's Political Economy.[1] So impressed was Carey with Raymond's work, that, "in a moment of enthusiasm," he made an offer of $500 a year to the University of Maryland,[2] for

warded for my pains, by the pleasure and instruction I have received. . . . . I have never read any work upon political economy with more satisfaction. It is a rich addition to my library, or what is of infinitely more importance, a proud monument of American literature. . . . . You have indeed cracked the shell of political economy and extracted the purest oil from the nut. I shall warmly recommend it to the perusal of every man of letters that I see." *Ibid.*

[1]Biographical Sketches. p. 9.

[2]It is to be regretted that the whole history of this episode can not be given. The records of the University have been destroyed by fire, but the following extracts from Carey's Biographical Sketches give the external history:

"In this year I displayed a degree of quixotism, that might have cost me dear, but I fortunately escaped. Daniel Raymond, Esq., of Baltimore, had just published his "Political Economy," a valuable work, containing more sound practical truths than I had ever seen in any book on the subject. I was delighted with the work and, in a moment of enthusiasm, it struck me that a course of lectures on the subject, to be delivered by Mr. Raymond, would have a most salutary effect. Accordingly, I gave a pledge to the University of Maryland, to pay five hundred dollars a year towards the expense of a professorship of political economy in that institution. To the discredit of the faculty be it said that they did not condescend to reply to me. They, however, declined to make any additional provision on the subject, and the sum I proposed not being sufficient to induce Mr. Raymond to abandon his practice the project fell to the ground. My reason for applying to the University of Maryland, was that Mr. Raymond lived in Baltimore, and I was determined that he alone should be the lecturer, as I would then be sure not to throw away my money to promulgate pernicious doctrines."

"Philadelphia, January 12, 1822.

"Know all men by these presents, that I do hereby bind myself to pay to the University of Maryland, the sum of 500 dollars, as one year's salary for a professor of political economy, and also to continue the subscription, unless I shall give six month's previous notice of my determination to discontinue the same.

(Signed) Mathew Carey."

the purpose of endowing a professorship of political economy to be filled by Raymond. But this offer, opening up a

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Letter from Carey to Raymond:

"Philadelphia, January 12, 1822.

"I have fully made up my mind to establish the professorship as stated in my last letter, provided it can be done for 500 dollars per annum. I shall pay one-half of the first year's salary, on the delivery of the first lecture, and the other half on the completion of the course.

"Should I at any time determine to withdraw from the undertaking, I shall regard myself at liberty to do so, on giving six months' previous notice. *But it is highly probable that I shall continue it as long as I live; and indeed make provision for it at my death.* You are at liberty to make the necessary inquiries of the president of the university. As for your fitness for the situation, it cannot be questioned. I regard you as peculiarly qualified for it."

From Raymond to Carey:

"Baltimore, January 18, 1822.

"Your letter, stating the liberal endowment you propose to make towards the establishment of a professorship of political economy for the University of Maryland, has been received and laid before the board of regents, who will, no doubt, duly appreciate your munificence and communicate with you further on the subject.

As regards myself, although it may not be in my power to coöperate with you in carrying your patriotic design into effect, yet I shall ever feel a grateful sense of your kindness and liberality."

From Carey to Raymond:

"Philadelphia, January 19, 1822.

"I feel much uneasiness at the receipt of your letter, lest you should not undertake the professorship in question. My views were directed to Maryland, entirely in consequence of the confidence I felt that the choice would fall on you, and of my approbation of the principles of political economy you have so ably advocated.

"In the event of your declining, or not being elected, the choice may fall on some person who may preach unsound doctrines, pernicious to the happiness of our citizens, and to the prosperity of the nation. In this case, I should devote my money to a purpose diametrically opposite to my intentions. Against this I here enter my protest. The foreign world furnishes us with apostles sufficient to preach those pestiferous doctrines whose operation has blasted the energies of the nation, and effectively rendered her a colony to the manufacturing nations of the old world. We have no need to hire them here to accomplish this baleful purpose." Biographical Sketches, pp. 93-96.

vista of possibilities, came to naught. It is possible that Raymond's chapter on slavery was a factor in determining the outcome.

Despite the warm commendation the work excited in some quarters, it was not able to "command the attention of the generality of readers." It was offered to the public in an edition of hardly more than seven hundred and fifty copies, and of this number "probably one-third were sacrificed at auction."[1] Nothing daunted by this, but encouraged by the favorable opinion expressed by "some of the most experienced and intelligent men in our country," Raymond in 1823 gave to the unappreciative public a second, and revised edition of his work.[2]

The principles laid down in the first edition were not departed from, nor modified. The asperity that marked its tone was somewhat softened, and much harsh criticism of Adam Smith was omitted—though sufficient of this latter crops out in the second edition to satisfy a moderate opponent of "foreign systems." The arrangement of the work

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[1] *Ibid.*, p. 9.

[2] In the second edition Raymond omits the unique preface that introduced the first, and in its place writes: "On presenting the public with a second edition of this work, the author feels himself constrained to express his gratitude for the kind reception, which the first hasty and imperfect edition met with, from a portion of his fellow-citizens. It was not to be expected, that a work, whatever might be its merits, upon so abstruse and forbidding a subject as political economy, would command the attention of the generality of readers in any country; and it would indeed be a wonder, if a book on any subject, written on the wrong side of the Atlantic, with the author's name to it, should be favorably received by the public generally. Our independence is not sufficiently established for that.

"But as some of the most experienced and intelligent men in our country have expressed a favorable opinion of the model, (for the first edition was but a model), and intimated that it was susceptible of being executed in such a manner as to be worthy of public patronage, the author felt himself not only justified, but required to make another effort to improve the work."

was altered, several chapters were recast, and a few new ones added, developing special topics that were of secondary importance in Raymond's system.

A copy of this second edition found its way to England, and was pronounced by "Blackwood's" "a work of extraordinary value;" but this criticism was that of an American temporarily resident in London,—a personal acquaintance, likely, and possibly even a friend of Raymond—and does not represent an English estimate of the value of the work. It was unable to secure a review at the hands of an English reviewer.[1]

The second edition appears to have met with as little popular favor as the first. Its sale was "very slow and limited," and Raymond seems to have been "a considerable loser" as the result of trying to furnish his fellow-citizens with a system of political economy of domestic manufacture. The

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[1] In 1820 a series of articles appeared in "Blackwood's" on "American Writers." They purported to be from the pen of an Englishman, but the real author was John Neal, "a Yankee, from Maine," and, like Raymond, at one time a member of the Baltimore bar. Neal gave up the practice of law for literature, and spent the years 1823-27 in England, where he was a frequent contributor to the British periodicals. His reference to Raymond is in his series on "American Writers," in Blackwood's for February, 1825, Vol. XVII., p. 200, and is as follows: "Daniel Raymond; a Yankee; from Connecticut, New England; a counsellor at law; author of a work on political economy, (2 vols. 8vo.), where a multitude of problems, phenomena, etc., etc., are explained with a simplicity quite startling—nay, quite provoking—to those who have been wasting years upon the science. We look upon it as a work of extraordinary value. It should have been republished here; or, at least, reviewed. A friend of ours (Neal) brought a copy "out," and exerted himself not a little, in trying to get some notice taken of it, by somebody equal to the job. Twice he was promised, without qualification, that it should be done. Twice he was disappointed. He then gave up the point." While in London Neal lived for considerable time with Jeremy Bentham, and was intimate with the little group of utilitarians, and economists, who used to meet periodically in Bentham's study. Was it possibly to one of these that he gave Raymond's treatise for review?

two editions together numbered only twelve hundred and fifty copies, and whilst each had failed of complete sale, Say's treatise had, during the same time, been translated and republished here in two editions,—the first of seven hundred and fifty, and the second of two thousand copies—and both had been sold out. Some two thousand copies of reprints of Adam Smith had also been taken up by the American public.[1] These facts scarcely bear out Raymond's complaint that "a very small portion of the intelligent reading part of the community ever think of reading a book upon the subject" of political economy, and indicate that the indifference which Jefferson lamented in 1815 was passing away.

The failure of Raymond's work to win popular favor is not in itself sufficient to convict the public of his day of an indifference to his science; the cause of this failure may more properly be sought in the character of the work itself. It was not without merit; in many respects it was worthy of the attention of the time, and merited a more careful and considerate perusal than it received. But looseness of method marked it, and frequently confusion of ideas; and in addition it touched upon too many questions that were then the centers of political storms. On one side or another it found itself in opposition to some popular prejudice. It ran counter to the philosophy of individualism, which was the accepted gospel of the elect of those days. Its advocacy of protection was too liberal to please the more rabid advocates of an "American System," and too pronounced, on the other hand, to win readers from amongst the strict disciples of *laissez faire*. Its intolerant opposition to banks and to all forms of corporations destroyed the value of his work in the eyes of the advocates of these institutions. His fierce hatred of slavery was a fatal obstacle to popularity in the South. It is more than probable that the unstinted praise and admiration the work elicited from John Adams was not due so much to any real merit it possessed as a scientific treatise as from the fact that Adams was a Federalist and believed in strong central government, stood for protection, abhorred

[1]Carey, Biographical Sketches, p. 9.

banks and paper money,[1] and loathed slavery;[2] and that in all these things he found in Raymond a kindred spirit. But Adams' type was not numerous. The men who agreed with Raymond in the matter of the province of government and of protection, would not have subscribed to his views on the banks; and those who would have been in agreement with his views on banks, were repelled by his position on slavery.

Raymond's second edition scarcely attracted the attention of even the reviewers, and little notice of it appears until 1825. A report then started the rounds of the press,—originating apparently with his friend and defender, the *Federal Gazette*, of Baltimore—to the effect that the work had been adopted in the University of Virginia as the standard text-book on political economy;[3] but this was promptly, and emphatically, denied by the Richmond *Enquirer*.[4]

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[1] "I have never had but one opinion concerning banking, from the institution of the first in Philadelphia, by Mr. Robert Morris, and Mr. Gouverneur Morris, and that opinion has uniformly been that the banks have done more injury to the religion, morality, tranquility, prosperity, and even wealth of the nation, than they can have done or ever will do good. They are like party spirit, the delusion of the many for the benefit of the few." "Works," Vol. X., p. 375.

"Our whole banking system I ever abhorred, I continue to abhor, and I shall die abhorring. . . . . Every bank of discount, every bank by which interest is to be paid, or profit of any kind made by the deponent, is downright corruption. . . . . Every bank in the Union ought to be annihilated, and every bank of discount prohibited to all eternity." *Ibid.*, Vol. IX., p. 638.

[2] *Ibid.*, Vol. X., p. 381.

[3] "We feel gratified to learn that the work of our fellow-citizen, Mr. Raymond, on political economy, has been adopted in the University of Virginia, as the standard work on that subject in that institution. When we consider the high political as well as literary reputation of the gentlemen who are at the head of that institution, among whom are the two ex-Presidents, Jefferson and Madison, we cannot but think this a most flattering compliment to the work, and one which can not fail to establish its reputation with the American people." *Federal Gazette*, June, 1825.

[4] "A paragraph from a Baltimore paper is now going the rounds,

In 1836 Raymond seems to have believed the time ripe for the acceptance of his principles, and he accordingly issued a third edition of his work. It was identical with the edition of thirteen years before, except for the addition of a chapter on "Tariffs," discussing the incidence of an impost tax. Other than this, not a word nor a comma was changed from the second edition. The two editions appear to have been struck from the same plates.

Of the fate of this edition I can find no traces. It must have met with more success than the preceding ones, for in 1840 Raymond was encouraged to put out a fourth edition. The second and third editions had been issued in two volumes, in large type, thus forming a bulky and unhandy treatise. Believing, probably, that a more compact and handy volume would be more acceptable to the public, he compressed the work in the fourth edition into one small volume. In essentials—with one exception to be noted—it was practically the same work that had appeared twenty years before, and twice at subsequent periods. The last edition could not so much be called revised, as condensed. The process of condensation consisted in omitting entirely several of the chapters added in the second edition, and others that had appeared in the original edition, and in shortening the remaining chapters by the wholesale cutting out of paragraph after paragraph, and even of page after page. It must be admitted that the constant repetitions that characterized the book made it peculiarly suited to this sort of revision.

We are left to surmise to account for the appearance, in comparatively rapid succession, of these last two editions,

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viz., that 'the work of Mr. Raymond on Political Economy, has been adopted in the University of Virginia as the standard work on that subject.' Having some reasons to doubt the correctness of such an assertion, while such works as Say, Ricardo, Adam Smith, &c., are in existence, we requested a friend to ascertain the facts; and we are now enabled to state positively that Mr. Raymond's work is not used as the text-book at the university, and that it is not known there except to Mr. Tucker, and possibly to Mr. Emmett." *Rich. Enq.*, July 1, 1825.

after the little success that had attended the earlier ones. During the thirteen years elapsing between the second and third editions Raymond had apparently given little thought to economics. Had he done so, and kept abreast of the development of the science, he would hardly have made his third edition a mere reprint of his second. The public seem to have grown to value him more as a lawyer than as an economist, and to have given him sufficient employment in his chief profession to prevent the necessity of his again having to seek diversion in formulating new economic theories. In his fourth edition he devotes some thirty pages to a commentary on the constitution. Such a discussion was perfectly germane to his subject, as he conceived it. The idea of writing it, was suggested to him by Provost Beasley in his letter of 1824, but in the preface to his fourth edition, Raymond explains that he had "had no leisure until lately, to write such a treatise." The intervening sixteen years, we may infer, had been a busy period for him in his regular profession, and had left no time for authorship.

In 1836 economic issues were more than ever the bone of political contention; and it is likely that the triumph of Jackson and the hard money party over the bank, the increase of the abolition sentiment, and the struggle that was going on to bring about a return to protective principles, led Raymond to think the time opportune for the acceptance of his doctrines. This assumption is supported by the fact that the only change in the edition of 1836 is the addition of a chapter on tariffs; and that in the edition of 1840, whilst many chapters are omitted, and most of the remaining ones pruned severely, the chapter on slavery is left untouched; the one on banking is modified only by the addition of a paragraph arguing against the constitutionality of the bank; the one on money is likewise left untouched save for the addition of a paragraph; the chapter on tariffs, added in the third edition, is retained; and the chapter on corporations is entirely rewritten,—and from rabid opposition changes to mild

tolerance of these organizations. The preface also adduces the political history of the preceding twenty years as an exemplification of the truth of Raymond's principles.

This fourth edition seems to have impressed John Quincy Adams as much as the first one had impressed his distinguished father. The son was at that time waging the battle of abolition in the national house of representatives with all his strength, and it is quite possible that it was Raymond's vehement chapter on slavery that won the admiration of this valiant champion, rather than the general soundness of his economic principles. At all events, he deemed the work worthy of the perusal of his fellow-statesman, and he found time, between presentations of abolition petitions, to make a formal presentation of a copy of Raymond's book to the library of the house of representatives. But there were those among his colleagues who could not find it in their hearts to share the admiration of Mr. Adams for the book, and the question of its acceptance created a scene in the national house that is worthy of note as indicating the standards by which a scientific treatise on economics was judged a half century ago, and the storm of prejudice it had to weather.[1]

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[1]House of Representatives; June 23, 1840:

"Mr. Adams presented a work on political economy, by Daniel Raymond, of Maryland; which, on motion of Mr. A. was ordered to be placed in the library of the House of Representatives."

June 24, 1840.

"Mr. Jones moved to go into committee of the whole on the state of the union, but temporarily withdrew his motion at the request of Mr. Crabb, of Alabama, who moved a reconsideration of the decision made yesterday to receive and place in the library of the House of Representatives, a copy of Raymond's Political Economy. Having examined that book, Mr. Crabb had discovered that it contained doctrine and language highly exceptionable to him as a Southern man; in case of reconsideration, he wished to move the reference of the book to the committee on the library, in order that it might be examined and reported on.

II.

In all its principles Raymond's system stands opposed to the orthodox political economy of his time. He alleges against the prevailing school, that it has failed to grasp the true concept of national wealth, and has therefore missed the real aim of true *political* economy; that it has studied how individuals may increase their wealth, assuming that national wealth was nothing other than the sum total of individual wealth, and that consequently the study of how individual

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Mr. Turney demanded the previous question on the motion to reconsider. The previous question was seconded, put and carried; and the main question being on reconsidering, Mr. Jones demanded the yeas and nays, which were ordered. Mr. Adams rose amidst cries of order, and was going on to express his surprise at the motion of the gentleman from Alabama, and to give some account of the book, when he was arrested by the chair. Mr. A. remonstrated. The chair insisted that he could not proceed, but by general consent. Objections were loudly uttered.

Mr. Lincoln said that unless his colleague were permitted to proceed and give the House some account of the book, Mr. L. should demand that the book itself be read. Objections being made, Mr. Lincoln demanded that the book be read. The chair decided that as the gentleman from Massachusetts (Mr. Lincoln) was called to vote respecting this book, he had a right, under the rules of the House, to have it read, if he so demanded. Great confusion arose. Messrs. Habersham, Turney, Andrews, Hopkins, and others were on their feet, all simultaneously addressing the chair. Mr. Hopkins called for the reading of the rule of the house, and also of Mr. Jefferson's manual on the question of order. Mr. Lincoln wished to explain, but the chair refused, the previous question having been ordered. The chair then stated his decision, and explained the ground on which it rested.

Mr. Hopkins took an appeal; before any vote was taken on the appeal, Mr. Ramsay moved to lay the whole subject on the table. Mr. Crabb wished to explain, but was arrested. The question being stated from the chair, Mr. Adams addressed the House. (Loud

wealth is augmented is at the same time the study of how national wealth is augmented; that it has, therefore, busied itself with the study of value, a phenomenon with which *political* economy has little concern.[1] In opposition to this, he contends that national wealth is something far other than the sum total of individual wealth; that the two are not even composed of the same ingredients; and that an increase in the wealth of one class of citizens does not of necessity imply an equal increase in national wealth.

Distinguishing national from individual wealth, Raymond defines the former as "a capacity for acquiring the necessaries and comforts of life," by labor.[2] Capacity, not com-

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cries of order.) The gentleman from Alaba— the chair called to order. The gentleman from Alabama has undertaken (order! order!) to be grand inquisitor for this House; to speak (order!) its opinion on a certain book. (Here the cries of order were very loud, and the chair ordered Mr. Adams to resume his seat.) The question being again stated Mr. Crabb demanded the yeas and nays, but the house refused to order them. The vote being taken, the chair, declared it to be decided in the affirmative.

The question was again put, and the House dividing, the yeas were 123 and the noes 30. So the House determined that the whole subject should be laid on the table.

[1]"According to the theory suggested in the preceding chapter, it will follow that *value* has very little application to public wealth; a very small ingredient or portion only of national wealth being the subject of value." p. 84, (4th ed.)

Unless otherwise specified, succeeding references are to Raymond's 4th ed.

[2]"This capacity never can exist independent of labor. Its extent, however, will depend upon a great variety of other circumstances. It will be materially influenced by the nature of the government. The energies of a nation, can be more fully developed under a free, than under an arbitrary or tyranical government.

"This capacity will also depend materially upon the climate and soil of a country; on the extent of territory in proportion to the number of inhabitants; on the denseness of the population; upon the equal or unequal division of property; upon the state of cultivation and improvements; on the degree of perfection to which the arts and sciences have been carried; on the nation's advantageous situation for commerce, and especially on the industrious economical habits of the people." p. 81.

modities, constitutes national wealth.

This concept of national wealth is the first characteristic principle of Raymond's system. The second is his insistence upon the recognition of the idea of a nation as an organic unit. The existing systems of political economy do not, he maintains, so conceive the nation. They have, in turn, mistaken the interests of one or another class for the interests of the nation as a whole; whereas the interest of an individual or a class may be opposed to the larger interest of the nation as one and indivisible.

From these two principles, Raymond argues that it is not the province of political economy to study how values are created and augmented, and how individuals or classes may acquire wealth; but rather to study how government may best legislate to secure the greatest well-being to all citizens alike.[1] Such questions, therefore, as value, rent, wages, profit, and interest, Raymond discusses only in passing;[2] they belong properly to individual economy, and not to national economy. The topics that concern him as a political economist, are the larger questions that operate directly and strongly on national wealth, and with which legislative policy must therefore concern itself.

Labor is the sole cause of wealth;[3] labor power is wealth,—and accordingly Raymond devotes a chapter to labor. He objects to Adam Smith's classification of labor as productive and unproductive. All labor is productive, except such as fails of its intended effect.[4] Instead therefore of this classification, he distinguishes labor as *productive* and as *permanent*. The end of productive labor is to produce things for direct consumption; of permanent labor, "to enlarge the boundaries of knowledge, and to augment the capacity for acquiring the necessaries and comforts of life."[5]

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[1] P. 116.

[2] Rent, wages, profit, and interest, were not discussed in the first edition of the work. Short chapters were devoted to them in the second edition, but were omitted again from the fourth.

[3] "Labour is the cause, and the only cause of wealth." p. 97.

[4] P. 90.

[5] P. 95.

A chapter is devoted to "Production and Consumption." In it Raymond attacks the "absurd doctrine of augmenting national wealth by accumulation;" maintaining that any excess of production above consumption produces stagnation and distress rather than wealth and prosperity. National prosperity is promoted only when all the fruits of productive labor are annually consumed; and national wealth is augmented when wise political institutions so operate as to direct a due proportion of the energies of the nation towards permanent labor.

Raymond next discusses Agriculture, Manufacture, and Commerce, in their influence upon national wealth. "Each of these three great departments of labor, has had its partisans, who have claimed for it the superiority over the others, as most conducive to national wealth. It is, however, manifest that in a national point of view they are but parts of one great system, each of them essential to the other."[1] The proportion that ought to exist between them will depend on circumstances and vary in different nations, and the wise legislator will encourage or restrain them in such way as will, in the circumstances of that nation, best advance national wealth and prosperity.

On the subject of money Raymond stands with the "hard money" school. He insists on "the necessity of intrinsic value in whatever is used as money; and the utter impossibility of giving a nominal value to money, above its intrinsic value as a commodity or as bullion."[2] He holds unquestioningly to the quantity theory, and to the currency principle. He insists that to the government alone belongs the function of furnishing money, whether coin or "representative paper," and that this function should never be entrusted to individuals or corporate bodies. The "manufacture" of credit money is merely "an ingenuous contrivance upon the public" for the benefit of the banks, and is at variance with

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[1]P. 117. [2]P. 165.

sound monetary principles. If a paper currency be needed, it should be issued by the government, and "whenever a paper dollar is put in circulation, a silver dollar should be withdrawn from circulation."[1]

To "the credit system, which has ruined so many people,"[2] Raymond is in general opposed; and towards the banks, promoters of this destructive system, he is thoroughly hostile. As "depositories of money and other valuable articles," and as offices for buying and selling bills of exchange and discounting real notes, banks are solely beneficial to the public; but by uniting in themselves the double function of loan office and of "manufacturers of paper money" they are a constant menace to prosperity, and invariably cause many and grave public evils. "By being loan offices, they are enabled to loan all the money they can make, or at least, as much as they please; and by being the manufacturers of a paper currency, they are enabled to make as much money as they can loan. So long as these two functions are united in the same body, they must and will be exercised to the prejudice of the public."[3] Nothing but the "good sense of the community has prevented the principle upon which the banks are established, from being carried to such an extreme as to ruin the country;"—had it been otherwise, and nothing interfered to prevent them from following out the dictates of their interests, the banks would "have become possessed of every foot of property in the country, which would have been paid to them in the shape of interest for their money."[4] Against banks Raymond lays specific indictments:

"They increase the quantity of circulating medium, and thereby depreciate its value."[5]

"Banks enable money lenders to obtain usurious interest for their actual money."[6]

"Banks promote extravagant speculation."[7]

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[1]P. 175. [2]P. 153. [3]P. 178. [4]*Ibid.* [5]P. 180. [6]P. 186. [7]P. 188.

"Banks cause sudden fluctuations in the value of property, and consequently produce extensive failures."[1]

"Banks have a tendency to banish the precious metals from the country."[2]

To remedy "the evils of the banking or credit system," Raymond proposes three alternative plans.[3] These evils, as has been pointed out, result from uniting in one body the two functions of loan office and manufacturer of paper currency. Therefore, let the power of issue be taken from the banks entirely, and reserved to the government; or, let their issues be regulated in amount by the government; or, if they must be allowed "to retain the power of manufacturing their own notes to as great an extent as they please," let there be taken from them "the motive to loan more than a certain amount of their paper in proportion to the amount of their capital."

The first plan proposes the issue by government of paper money, on the strict currency principle, as outlined in his discussion of money.[4] If this method be adopted, all evils in any way connected with the banking system can be cured, by the simple, but drastic process of abolishing the whole banking system,—"which may be done without any inconvenience to the public."[5]

The second plan proposes that the banks be limited in the issue of their notes to a certain ratio of their paid-up capital, —all notes to be engraved by the government and delivered to the banks for signature and issuance only upon proof of the actual amount of paid-up capital. This plan is, in effect, almost identical with the one adopted by Congress in 1863 as the basis of the national bank issues.[6] The third plan proposes that, in case this second one should be thought impracticable, a maximum rate be fixed by law for bank divi-

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[1]*Ibid.* [2]P. 189. [3]Pp. 192-3. [4]Supra; pp. 31-2. [5]P. 193.

[6]Raymond's plan, in view of its close resemblance to the plan adopted for controlling the national bank issues, is worth quoting in

dends, and all surplus profits over and above this rate be appropriated by the government for the public benefit.

Raymond also argues against the constitutionality of a national bank, on the ground that it is virtually turning over to a corporation the prerogative of acting as a regulator of the circulating medium; and that as this function partakes of the nature of a legislative rather than a ministerial act, it cannot be delegated by congress.[1]

To the subject of "Finance," Raymond devotes little space. That branch of the science of political economy is important indeed, but has been exalted into undue pre-eminence. A stateman's abilities are usually estimated by his adroitness and skill in "diverting a portion of the stream of public wealth into the public treasury," whereas "true political skill consists in an ability to augment the stream itself of public wealth."[2] As to the general injurious effect of taxation upon production, Raymond takes issue with Smith, Say, and Ricardo, and maintains that taxes judiciously expended may so act as to augment *national* wealth, rather than

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detail. "If we must have a bank paper currency, it seems proper that it should be under the control of the government. If the government will not adopt the plan suggested in the chapter on money, let it take into its own hands the engraving and manufacturing of bank notes, all except the signatures, and establish a mint, and appoint officers under proper responsibility, for that purpose. The banks are to be permitted to issue no paper except what they obtain at this office of the government. The government is then to determine the amount of paper the banks are to be permitted to loan in proportion to the amount of their capital—and upon the incorporation of a bank, and proof being furnished of the amount of specie or capital paid in, so much paper is to be furnished the bank as the government has fixed upon, as the quantity the bank may issue in proportion to the amount of its capital. In some such way as this, it would seem that the banks might be restrained from excessive issues of a paper currency." p. 193.

This chapter was written in 1820.

[1] P. 194. [2] P. 237.

affect it injuriously—however they may affect individuals or classes.[1] Equality of taxation is to be sought with reference to persons, not to property. Indirect are to be preferred to direct taxes. Taxes are classified, land tax, excise tax, and imposts. Of these imposts have an undoubted preference over either of the other forms. As between a land tax and an excise tax advantages are divided.[2]

Rabid hostility towards all "money corporations" characterizes Raymond at the beginning of his career as an economist. So far as is possible in civil society, the "natural equality" of men should be preserved. To this end government should bend its efforts. Money corporations are "artificial engines of power, contrived by the rich, for the purpose of increasing their already too great ascendency, and calculated to destroy that natural equality among men, which no government ought to lend its power in destroying." "Corporations are, therefore, *prima facie*, injurious to national wealth."[3] But in his last edition (1840) Raymond grows more discriminating in his condemnations. He suggests merely legislative supervision over the most objectionable forms of *public* corporations, for, "then they become the mere agents of the legislature to accomplish a public good." As

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[1] Pp. 247-8.

[2] "Imposts have an undoubted preference over all other taxes. are indirect, and are, therefore, paid voluntarily. They are levied and collected when the goods are in the hands of the fewest persons, and are, therefore, collected with the least expense and they have the very important advantage of securing to domestic industry a preference in the home market. In other words, they are equal as affects citizens, and unequal as between citizens and foreigners, to the amount of the difference between the imposts and an excise tax upon the same kind of produce. If the tax was equal upon domestic and foreign products, then foreigners would stand upon an equality with citizens in the home market, while citizens probably would not stand upon an equality with foreigners in their own market." p. 255.

[3] P. 121, Vol. I., 2nd ed.

for private corporations, "they may be multiplied indefinitely, without detriment to the public, provided they are secured against the depredations of stock jobbers."[1] In 1836, he writes, "the very object then of the act of incorporation is to produce inequality, either in rights or in the division of property."[2] In 1840, "the only effect of the charter of incorporation is to make unity out of a multitude, so as to enable them to act as an individual in one name, and to transfer and transmit their property, without the legal impediments and hindrances which attend partnership transactions."[3] The point of view that marks the editions of 1820, 1823, and 1836, is very far from the one that characterizes the edition of 1840; the philosophy of a lifetime suffers violent metamorphosis within four years.

As would be expected from the basis of his system, Raymond favors a protective system. He does not, as would have been most logical, and as List did later, develop his protective doctrine directly from his two fundamental concepts. He was too much haunted by the spectre of Adam Smith, and too much possessed by the idea of refuting his system point by point. Instead, therefore, of attempting to build up a logical and consistent system, which in its conclusions should stand opposed to those of the school of Smith, he is constantly shifting his position and adapting his arguments to the purpose of refuting Smith specifically point by point. He denies the assumption that each individual in seeking his own interest will employ his capital in the way most beneficial to the nation, and he therefore justifies governmental restriction on the ground of its tending to promote the welfare of the nation as a whole.

He admits as a general rule that if a nation can buy an article cheaper than it can make it, it is better to buy than to make; but the numerous exceptions to this rule "will em-

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[1] P. 275. [2] P. 119, 2nd ed. [3] P. 275.

brace the policy of protecting duties to as great an extent, as has ever been contended for by the partisans of a restricted trade."[1] A protective system is required in the interest of the nation as a whole in order to give constant employment to its whole labor force.[2] Further, though the initial cost of producing certain articles should be more than would be required to purchase them abroad, their average cost of production in the long run ought to be taken into account rather than initial cost.[3]

A monopoly of the home market produces certainty and stability of demand;[4] it increases a nation's skill in the arts and sciences, and thus increases its capacity for acquiring the necessaries and comforts of life,—increases national wealth.[5] Unless the people of this country are to be "reduced to the necessity of working as hard and living as poor, as the English laborers," a tariff must be maintained to enable our manufacturers to compete with those of England in a great variety of articles.[6] But even could we produce as cheaply as England, a tariff would still be required to prevent the *surplus* product of British manufacture from being irregularly dumped on our market and demoralizing prices, to the destruction of our home manufactories.[7]

A tariff requires constant revision. The general rule is stated that "a tariff ought not to be reduced, although it may frequently require to be raised;" "and it should be lowest upon those articles which are not, or cannot be produced in this country, and highest upon those which employ the greatest number of people, or the greatest portion of the industry of the country."[8] Under the head of tariffs, Raymond discusses the question of who pays the duty. By a strictly "*a priori*" process of reasoning he reaches the con-

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[1]P. 216. [2]P. 218. [3]P. 223. [4]P. 224. [5]P. 224. [6]P. 225. [7]P. 226. [8]P. 226.

clusion that the producer and consumer share between them the burden of the tax.[1]

In conclusion he hurls maledictions at slavery, as a moral blight and an economic curse. It acts as a check on population, and thus exerts a pernicious influence on national wealth and prosperity. Legislation must devise the most effective means to root out this obstacle to national prosperity.

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[1] P. 231.

CHAPTER III.

GENESIS OF RAYMOND'S SYSTEM.

I.

A brief outline of Raymond's system has been given. How are we to trace its genesis? The tendency of much of the economic thought in this country in Raymond's time was plainly begotten of hostility towards England and all that was English; but in Raymond's case there is no justification whatever for the statement that we can trace his inspiration to this source.[1] On the contrary, there is every reason to believe that his economic views were the natural consequence of a study of the phenomena that confronted him on every side. He did not adopt his principles to be in opposition to Adam Smith; he was in opposition to Adam Smith because his principles landed him there. He was confronted—and deeply impressed—by a slave power grown to threatening proportions, and bidding fair to turn backward the current of national prosperity; he had seen trade wrecked and industry paralyzed by reckless banking, and the business community powerless to protect itself; he had seen great manufacturing interests grow up around him—a source of

[1]Furber—p. 58, of his Geschichte und kritische Studien zur Entwickelung der Oekonomischen Theorien in Amerika—says that Raymond was not free from the hatred of England so prevalent at that time in this country; and Cossa, p. 465, says, "Daniel Raymond, the first of all the spokesmen for American national and protective theories, was partly inspired to his utterance of them by animosity against England." A careful reading of Raymond's work scarcely bears out Furber's statement; and as for Cossa, he could hardly have read Raymond at all, as there is, in fact, not a line in any of his four editions that would even suggest animosity against England as the motive impelling him to write his work. On the contrary, considering the time, the subject, and our relations towards England, there is a most marked absence in Raymond of anything savoring of animosity towards England.

power and wealth to the nation—only to be threatened with annihilation by the pent-up flood of British wares that deluged the country after the return of peace in 1815; and he, in consequence, began to entertain doubts as to the wisdom and practicability of a system of political economy that ignored the existence of national boundaries, assumed for its philosophy "the harmony of interests," and preached for its gospel *laissez faire*. He thought that he saw a necessity for governmental restriction to check the selfish and short-sighted policy of individuals, and to keep the nation as a whole in the path of prosperity. He is accordingly led to the belief that the prevailing systems of political economy are not adapted to the circumstances of this country;[1] and he sets out to study our peculiar conditions, and to develop a system of political economy that will harmonize with the observed facts of our economic life, and serve to light the way for legislation beneficial to American interests.

Around him he saw a young country with undeveloped resources that dazzled the imagination, and in which it was emphatically true that power was wealth. Its wealth and prosperity could not be gauged by the same standards as would individual wealth and prosperity. An individual who steadily buys more than he sells is supposed to be on the road to poverty; but here was a nation, here were commonwealths, that for decades had bought more than they sold, and which were yet recognized as increasing in real wealth out of all proportion to their accumulating debts.[2] Even in popular parlance, not the *stock* of the country, but its productive capacity was regarded as the evidence of its wealth and progress. Raymond came thus naturally to his characteristic concept of national wealth.

His sympathy rests with what we term the masses. These he believes to have been ignored in former treatises professing to be concerned with the *nation's* wealth;[3] and in his system he desires to take account of them and their interests.

[1] P. 5, 1st ed. [2] P. 129. [3] P. 43, 2nd ed.

He was a lawyer, and his legal habit of mind leads him to conceive the state as a corporation,[1] and gives him a formula that fits his need. Thus he comes to his second basic concept of a nation as an organic unity, composed of all its citizens alike, "a unity of rights, interests and possessions."

A study of Raymond's work, then, suggests environment and training as the sources of his fundamental concepts, rather than hostility towards England.

As for the rest, he is lacking in method. He is partly deductive, partly inductive; but neither consistent nor discriminating in the use of either method. He studies conditions as they confront him, but his inferences are often colored to a degree by his prepossessions. He rejects Adam Smith's principle that the individual in seeking out his own best interests necessarily advances the interests of society, because it will not square with the facts standing out in bold relief in American economic life. But despite the benefits that a community may derive from "money corporations," he condemns them indiscriminately because they are opposed in principle to his social philosophy that the natural equality of man is to be preserved as far as possible in civil society. He argues against the doctrine of augmenting national wealth by accumulation, because he conceives the law of nature to be that production should only keep pace with consumption; nature antagonizes the storing up of her fruits; and the story of the Hebrews and the manna in the desert is for him a conclusive exemplification of the operation of this law.[2] "In the sweat of thy face shalt thou eat bread,"[3] he erects into a scientific formula, and makes it serve as a basis for deductions. He even inclines to allow his strong human feeling and his sense of Providence to supply the place of analysis and logic.[4]

The strong sense of personality, the warm human sympathy, the realization that man, not matter, is the subject of his

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[1]P. 272. [2]P. 103. [3]P. 70.

[4]"Mr. Malthus' theory of population is certainly ingenuous and plausible, and for the most part sound, although it is calculated to

study, that wealth is a means, not an end, that his science is human, not mechanical,—these things stand out in Raymond in contradistinction to the cold formalism, the chilling abstractness of the classic economics of that day,—and almost make one forgiving toward serious lapses from scientific method.

II.

Raymond seems to have been familiar with Adam Smith, Malthus, Ricardo, Lauderdale, Ganilh and J. B. Say.[1] The system of the Physiocrats he knew only partially, and at second hand.[2]

He is in opposition to the system of Adam Smith at nearly every point, and his criticism of Smith—especially in his first edition—is narrow and harsh. Say he rates as inferior

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leave very erroneous impressions on the mind of the reader, in consequence of his not having treated the subject in conjunction with others with which it is necessarily connected. Although his theory is founded upon the principles of nature, and although it is impossible to discover any flaw in his reasoning, yet the mind instinctively revolts at the conclusions to which he conducts it, and we are disposed to reject the theory, even though we could give no good reason for rejecting it." p. 273, 1st ed.

[1]Raymond had not read Say when he published his first edition in 1820, for Say had not then been translated in this country, and Raymond in his second edition—(V. I., p. 174),—says he has read Say only in the translation. But reading Say does not appear to have modified any of Raymond's views.

[2]Raymond, in several places, refers directly to the Physiocrats in a way that would suggest an acquaintance with them, and this impression is confirmed by the reference in his second edition—(V. I., p. 97)—of a quotation direct to "Physiocratie, p. 107." The quotation, however, is taken at second hand, from Lauderdale, p. 125, and not directly from "Physiocratie," as would seem. In his first edi-

to both Adam Smith and Malthus.[1] Of Malthus he appears to have a favorable estimate, and several times quotes him approvingly.[2] Of Ricardo he expresses no opinion; he refers to him in the chapter on taxation, only to refute him.

Lauderdale is undoubtedly the author who exerted the most influence upon Raymond. The general plan of Raymond's treatise is somewhat similar to that of Lauderdale,—first, an inquiry into the concept of wealth, its cause, and its source, and then a discussion of the means by which national wealth may be promoted.[3]

Raymond follows Lauderdale in distinguishing individual from national wealth, and, like him, makes this the basic principle upon which he erects his system. He says that Lauderdale is the only writer known to him who makes this distinction;[4] and it is most probable that it was this distinction of Lauderdale that first led Raymond to seek in a new concept of national wealth the basis for what seemed to him the true system of political economy.[5] But Raymond does not appropriate Lauderdale's idea bodily; he gets from it no more than a suggestion as to the lines along which study may profitably be made.[6]

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tion, p. 92, he says in a foot note that he has never read any of the writings of the Physiocrats, his only knowledge of their theories being "derived from Smith, Ganilh, and others, who have combatted their theories."

[1]" . . . in comprehensiveness of views, and in the powers of reasoning, M. Say is vastly inferior, both to Adam Smith and Malthus." P. 173, 2nd ed.

[2]Pp. 129, 169; V. I., p. 354; V. II., 2nd ed.

[3]Comp. Raymond, pp. 3-4, Vol. II., 2nd ed., and Lauderdale, introduction.

[4]"Lord Lauderdale is, I believe, the only writer on political economy, who has attempted to distinguish national from individual wealth." P. 174, 2nd ed.

[5]"His lordship, however, deserves great credit for having suggested the fundamental principles of the science, although he failed in stating it with precision."

[6]"But although the noble earl was impressed with an idea of the existence of such a distinction in the nature of things, and the neces-

The distinction which Raymond makes between national and individual wealth is his own, not Lauderdale's. The basis on which the distinction rests is very different in the two writers. Lauderdale makes no specific difference between the *things* that go to constitute individual riches and those that go to constitute public wealth. He makes public wealth "to consist of all that man desires as useful or delightful to him;" and private riches "to consist of all that man desires as useful or delightful to him; which exists in a degree of scarcity."[1] Thus, the objects that enter into the two categories are only differentiated by the accidental attribute, scarcity; there is no essential difference in the things themselves. Any object that is embraced under either category, is capable of being embraced under the other. Public wealth is in reality only a slightly more generic concept than individual riches, and anything included under it can be included also under the less extensive concept, individual riches, by simply coming to exist in a degree of scarcity.

Raymond, on the contrary, founds the main difference between the concepts of individual wealth and national wealth upon a radical and essential difference in the nature of the things that are embraced under the two concepts. To him individual wealth means "the possession of property, for the use of which, the owner can obtain a quantity of the necessaries and comforts of life."[2] The term property "includes lands, goods, money, and stock," and "the value of these that an individual possesses, ascertains the amount of his

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sity of pointing it out, and establishing it as the basis of the science, yet he has utterly failed in his attempts to ascertain in what this distinction consists." P. 175, 2nd ed.

"Although Lord Lauderdale had conceived some indistinct notion of the difference between national and individual wealth, yet as he did not preserve the unity of the nation, and a consequent unity of its interests, he did not succeed in establishing the distinction he had imperfectly conceived."

[1] "An Inquiry into the Nature and Causes of Public Wealth." Pp. 56-7.

[2] P. 77.

wealth." Individual wealth is thus made to consist of *commodities;* value is its measure; and exchange-ability its distinguishing characteristic.

National wealth is something quite different from this. It is defined, a capacity for acquiring, by labor, the necessaries and comforts of life. It is thus made to consist, not of objective goods, but of forces, of labor power. The two concepts are generically different. The things embraced under the concept of national wealth could not possibly be made to come under the category of individual wealth.

With Lauderdale, water, for example, is public wealth, and it may also be made to come under the term private wealth, if it become so diminished in quantity as to exist in a degree of scarcity. But with Raymond, the labor power, the energy, and the habits of the community constitute elements in its national wealth; and these can not be brought under his concept of private wealth.

While Raymond and Lauderdale are thus similar in that they both distinguish public from private wealth, there is no similarity in the distinctions themselves which they make. Raymond's concept of national wealth bears no trace of similarity to that of Lauderdale. There is nothing in Lauderdale to furnish even a suggestion of such a definition of national wealth as Raymond gives; and his system thus appears to be based upon an original, and not upon a borrowed idea.

So too in attacking the thesis of Adam Smith, that "parsimony and not industry is the immediate cause of the increase of capital," Raymond is found sustaining the same theory as Lauderdale; but again his arguments are other than Lauderdale's, and seem to have been in no way derived from him.

It may be again repeated, that in these cases the influence of American conditions and of the phenomena here confronting Raymond appear as more potent factors in determining his conclusions than do the theories or arguments of Lauderdale.

CHAPTER IV.

Daniel Raymond and Friederich List.

There is a striking similarity at bottom between Raymond's theories and "The National System of Political Economy" developed by Friederich List.

It is not too much to say that not only is the germ of List's system to be found in Raymond, but that a very considerable development is to be found scattered through his eight hundred and odd pages.[1] The theory is not developed by Raymond with anything like the elaboration and continuity that characterize List's treatment of it. But it will be recalled that Raymond was only a political economist incidentally; a lawyer to whom the public permitted too many moments of leisure to be whiled away in the conning of musty tomes; who sought diversion in putting on paper some of his thoughts on economics; and who wrote, accordingly, rather for his own amusement than for the public. It will be remembered also that during the twenty years intervening between the first edition of his work and the last one, his system received at his hands no modification or development worthy of note. It remained what it was at first, the initial product of a comparatively young man, who, by way of change, devoted himself for a short period to economic study. List's system, on the contrary, represents the labors of a professed economist, who for twenty years devoted himself earnestly to the study of economic phenomena, and to the construction of his economic system.

It is not, therefore, to be expected that Raymond's system should have received the same degree of development as did List's. But it is contended here that in Raymond's "Thoughts

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[1]This refers to his second edition.

on Political Economy," published in 1820, and in his slightly elaborated "Elements of Political Economy," published in 1823, are to be found enunciated the fundamental principles that List takes as the basis for his "Outlines of American Political Economy," 1827, and of his elaborated and more complete work, "The National System of Political Economy," 1841.

A comparison of the works[1] of Raymond and of List will show that the following fundamental theses are common to both.[2]

The dominant school of economists, Adam Smith and his disciples, has not distinguished between private and public economy, and has, therefore, treated of the economy of individuals rather than of political, or national economy.

List.	Raymond.
"The component parts of political economy are, individual economy, national economy, and the economy of mankind."	"As national wealth is a distinct thing from individual wealth, so political economy is a distinct thing from private economy." P. 406.
"Adam Smith treats of the economy of mankind and forgets to treat of the wealth of	"The fundamental error, as I apprehend, into which Adam Smith and most other writers

[1]Unless otherwise stated, the references by pages in the parallel quotations are to Raymond's Elements of Political Economy, 1823, and to Lloyd's translation of "The National System of Political Economy," London, 1885. The references to "letters" of List are to the letters that make up his "Outlines of American Political Economy," Phila., 1827.

[2]Despite a specious appearance of method and logical arrangement List's work is rambling and diffuse; and Raymond is prolix to a degree, and hopelessly wanting in a methodical development of his system. A brief comparison of their two systems is, consequently, difficult, and bound to be more or less unsatisfactory. An attempt is made in what follows to present in concise theses the fundamental principles that underlie List's system, and in something like the order of his development of them, and to show the similarity of Raymond's theories by selected extracts bearing upon the same points.

nations. . . . . "his book is a mere treatise on the question of how the economy of individuals and of mankind would stand, if the human race were not separated into nations, but united by a general law and by an equal culture of mind." Letter 1.

have fallen, ..., is their not having distinguished between public and private wealth." P. 155.

"Instead of treating of public economy they in fact treat of private economy; instead of talking about nations they talk about individuals." P. 139.

"We must be careful to keep in mind the distinct notion of a nation itself, and not confound it with the individuals or any portion of the individuals of which that nation is composed; a thing that is often done by the best writers on political economy. It is, indeed, the prevailing error of every writer on the subject I have read. Whilst they profess to treat of national interests, they depart from the subject and treat of individual interests." P. 34.

"M. Say's work is liable to the objection of being a partial instead of a general treatise on political economy. It treats rather of private than of public wealth." P. 173.

The school of Adam Smith further fails to distinguish the interests of a nation from the general interests of the race, and its doctrines are therefore too cosmopolitical to admit of application in present actual conditions.

List.

"If the whole globe were united by a union like the twenty-four States of North America, free trade would be quite as natural and as beneficial as it is now in the Union."

"There would be no reason for separating the interest of a

Raymond.

"If governments could be administered upon the perfect principles of universal philanthropy, perhaps a nation might be required to forego an advantage to itself, upon the ground that the interests of other nations required it, although even

certain space of land and of a certain number of human beings from the interests of the whole globe and the whole race . . . .

"There would be no national interest. . . .

"This state of things may be very desirable,—it may do honor to the heart of a philosopher to wish for it,—it may even lie in the great plan of Providence to accomplish it in after ages. But it is not the state of the actual world.

"Adam Smith's system, *in the world's present condition,* goes therefore along with the good Abbe St. Pierre's dreams of eternal peace, with the systems of those who fancy the laws of nations." Let. I.

"Cosmopolitan institutions . . . . are not yet ripe for being introduced into practice." Let. II.

then it would be doubtful; for those principles, by such expansion, become so dissipated, as to have no efficacy or power, and the old adage, 'charity begins at home,' is, no doubt, the best commentary that ever was written upon the doctrines of universal philanthropy.

"But at any rate, in the present state of the world, it would be chimerical to the last degree for a political economist to discuss the question, how far a nation should be governed in its policy towards other nations, by the principles of universal philanthropy. At present the duties of government extend no further than the protection of its own citizens, and the promotion of its own national wealth; and any chimerical notions of universal philanthropy, which carry the duty of a government to the superintendence, or consideration even, of the interests to the citizens of a foreign country are as unwise as they are impracticable." P. 166, V. II.

The school of Adam Smith assumes that the interests of the individual and of society are identical; that the individual best knows his own interests, and, if allowed to pursue his own interests in his own way, will necessarily further the interests of society. But this assumption is without warrant; the immediate interests of the individual and of society are often at variance; aud the temporary interests of the individual seldom ever harmonize with the permanent interests of society.

List.

"'What is prudence in the conduct of every private family,' says Adam Smith, 'can scarcely

Raymond.

"It seems to be an admitted dogma with Doctor Smith that national and individual interests

be folly in that of a great kingdom.' Every individual in pursuing his own interests necessarily promotes thereby also the interests of the community. It is evident that every individual inasmuch as he knows his own local circumstances best and pays most attention to his occupation, is far better able to judge than the statesman or legislator how his capital can most profitably be employed." P. 162.

"Is the wisdom of private economy also wisdom in national economy? Is it in the nature of individuals to take into consideration the wants of future centuries, as those concern the nature of the nation and the State? Let us consider only the beginning of an American town; every individual left to himself would care merely for his own wants, or at most for those of his nearest successors, whereas all individuals united in one community provide for the convenience and the wants of the most distant generations; they subject the present generation for this object to privations and sacrifices which no reasonable person could expect from individuals." P. 165.

"Nor does the individual merely by understanding his own interests best, and by striving to further them, if left to his own devices, always further the interests of the community. We ask those who occupy the benches of justice, whether they do not have to send individuals to the tread-mill on account of are never opposed, but a more unsound doctrine in principle, or a more abominable one in its consequences can not well be imagined." P. 215, V. II.

"Public and private interests are often directly at variance." P. 220.

"Private citizens can only be expected to be wise for themselves—it is not their duty to look after the public interests—they are not the conservators of national wealth. This belongs to the department of legislation. If, from particular circumstances, . . . one species of industry is more profitable than another, it must be expected that individuals will embark in it, without any regard to the evil consequences it may produce to succeeding generations; but it does not become a legislator, either to be blind to their consequences, or not to guard against them. . . . No man can be expected to forego a present advantage to himself, provided there is no immorality in the enjoyment of it, upon the ground that it may be prejudicial to posterity. He may have no posterity, or if he has, their interests at the distance of two or three generations, are too remote to influence his conduct. The influence of self-interest on human conduct, like the laws of gravitation, is in the inverse compound ratio of distance and quantity.

"Legislators, however, are not permitted to take such limited short-sighted views of things, .

their excess of inventive power and of their all too great industry. Robbers, thieves, smugglers and cheats know their own local and personal circumstances and conditions extremely well, and pay the most active attention to their business; but it by no means follows therefrom that society is in the best condition where such individuals are least restrained in the exercise of their private industry. In a thousand cases the power of the State is compelled to impose restrictions on private industry. It prevents the shipowner from taking on board slaves on the west coast of Africa, and taking them over to America." P. 166.

. . . . . they are traitors to their high trust, if they do not look to the future as well as to the present. Even according to the laws of self-interest, the remoteness of the interests of future generations, should be counterbalanced by the magnitude of those interests." P. 222.

"As a general rule individuals understand the management of their own affairs and the art of getting rich better than any philosopher can teach them." P. 156.

"An individual may study his own advantage by smuggling goods, but it will hardly be pretended that that is 'an employment most advantageous to the society,' or nation. An individual may study his own private advantage by employing his capital in the slave trade, but he would not thereby study the advantage of the nation." P. 214, V. II.

A true system of political economy cannot ignore the existence of separate nations.

Each nation is to be regarded as an organic unity; imperishable; having national interests separate and distinct from; often opposed to; and always paramount to, the private interests of individual citizens on the one hand, and to the interests of other nations, or of the race in general, on the other.

List.

"We have proved historically that the unity of the nation forms the fundamental condition

Raymond.

"A nation is as much a unity as an individual, and must always be so considered, when

of lasting national prosperity;

and we have shown that only where the interest of individuals has been subordinated to those of the nation, and where successive generations have striven for one and the same object, the nations have been brought to harmonious development of their productive powers, and how little private industry can prosper without the united efforts both of the individuals who are living at the time, and of successive generations directed to one common object . ." P. 163.

"A nation is . . . a separate society of individuals, who,

possessing common government, common laws, rights, institutions, interests, common history and glory, common defense and security of their rights, riches and lives, constitute one body, free and independent,

following only the dictates of its interests, as regards other independent bodies, and

possessing power to regulate the interests of the individuals constituting that body, in order to create the greatest quantity of

treating of national interests." P. 44.

"A nation is one, and indivisible; and every true system of political economy must be built upon this idea, as its fundamental principle." P. 44.

"When (public and private interests are) at variance, it is not to be made a question which ought to prevail." P. 220.

"What is true as it respects the duty of government, in regard to the slave trade so far as national interests alone are concerned, is true of every other measure relating to national industry, which has a remote tendency to affect national wealth and prosperity. The true policy for every wise legislator is, to consider the nation immortal, and to legislate for it, as though it was to exist forever." P. 224.

"A nation is an artificial being or a legal entity, composed of millions of natural beings." P. 35.

"A nation is a unity, and possesses all the properties of unity. It possesses a unity of rights, a unity of interests and a unity of possessions." P. 35.

"Every nation is to consult its own interests exclusively, without any regard to the interests of other nations. P. 166, V. II.

"The internal policy of a nation, ... should be modeled with a view to the general good. The welfare of the many

common welfare in the interior, and the greatest quantity of security as regards other nations." Let. II.

"As individual liberty is in general a good thing so long only as it does not run counter to the interests of society, so is it reasonable to hold that private interests can only lay claim to unrestrained action so long as the latter consists with the well-being of the nation. But whenever the enterprise and activity of individuals does not suffice for this purpose, or in any case where these might become injurious to the nation, there does private industry rightly require support from the whole power of the nation, then ought it for the sake of its own interests to submit to legal restrictions." P. 172.

"The State is not merely justified in imposing, but bound to impose certain regulations and restrictions upon commerce, (which is in itself harmless) for the best interests of the nation." P. 167.

should never be sacrificed to that of the few." P. 166, V. II.

"The citizens should have as much liberty as is consistent with the good of the nation. To deprive him of this would be a tyranny. More than this he ought not to claim." P. 202, V. II.

"No citizen should have a right or an interest opposed to the general good of the nation." P. 201, V. II.

"The question whether individuals should be permitted to sell, where they can sell *dearest*, and buy where they can buy *cheapest*, ought not to be decided upon the narrow, contemptible principles of private interests, but upon the more expanded and noble precepts of public interests." P. 220.

"It is ever to be remembered trat the public interests are paramount to individual interests—that a private mischief or inconvenience must be endured for the public good; and that when a political economist has shown that public and private interests are opposed, he has made out a case in which the interposition of the government is necessary—he cannot be required to prove that private interests ought to give way—that is to be taken for granted." P. 201, V. II.

In contradistinction, therefore, to private or individual economy, and to cosmopolitical economy, or the economy of mankind, there is a national economy, arising out of the fact of the existence of separate nations.

Each nation, according to its circumstances, has its own particular system of national economy; and it is the province

of a national economy to point out the means by which a nation may raise itself to the highest point of national prosperity and power.

LIST.

"To complete the science, we must add the principles of national economy. The idea of national economy arises with the idea of nations." Let. II.

"National economy teaches how a certain nation in her particular situation may direct and regulate the economy of individuals, and restrict the economy of mankind; *i. e.*, how, in the absence of a lawful state including the whole earth, to create a world in itself, in order to grow in power and wealth, to be one of the most powerful, wealthy, and perfect nations of the earth." Let. II.

"In political economy there must be as much politics as economy." Let. II.

RAYMOND.

"Foreign theories and systems of political economy, from the dissimilarity in the nature of the governments, are altogether unsuited to our country." P. 5, 1st ed.

"Political economy is a science which teaches the nature of public or national wealth. . . . It professes to teach the most effectual means of promoting a nation's wealth and happiness, and it embraces every subject which has a tendency to promote them." P. 9.

"It belongs to the department of the political economist to ascertain the operation of political institutions, and when they are found defective, or prejudicial, to point out the proper remedy. His immediate object should be to instruct governments how to legislate, and not individuals how to get rich." P. 150.

The system of Adam Smith and his school is a theory of exchange values, and these are the proper subject matter of individual economy.

National wealth consists, not in exchangeable commodities, but in productive powers; and therefore a national economy has little concern with values; it is concerned with the study of the development of productive power.

LIST.

"That Smith's school teaches nothing else than the theory of values, is seen not only from

RAYMOND.

"Another of the evil consequences of not distinguishing between public and private

the fact that it bases its doctrine everywhere on the conception of 'value in exchange,' but also from the definition it gives of its doctrine. It is (says J. B. Say) that science which teaches how riches, or exchangeable values, are produced, distributed and consumed. This is undoubtedly not the science which teaches how the *productive powers* are awakened and developed, and how they become depressed and destroyed." P. 138.

"Adam Smith's system is nothing more than a theory of values; a mere shopkeeper's or individual merchant's theory—not a scientific doctrine showing how the productive powers of an entire nation can be called into existence, increased, maintained and preserved,—for the special benefit of its civilization, welfare, might, continuance and independence.

"This system regards everything from the shopkeepers' point of view. The value of anything is wealth, according to it, so its sole object is to gain values." P. 350.

"In individual and cosmopolitical economy the object is to gain matter in exchanging matter for matter, as in the trade of a merchant." Let. II.

"We must say to M. Jean Baptiste Say at the outset that *political* economy is not, in our opinion, that science which teaches only how values in exchange are produced by individuals, distributed among them and consumed by them; we say

wealth, is a constant liability to mistake the proper subjects which belong to the science. Hence the tedious length to which most writers have investigated the subject of value, and the causes of its fluctuations, supposing it to be the measure of public as well as of private wealth." P. 181.

"It is very natural for merchants, when they turn politicians, to use their own terms and tools of art, . . . , but it is the business of a political philosopher not to be misled by these misapplications of terms, nor to misapply them himself, . . . and when treating of national wealth in gross, let him not use terms applicable to only a part of the nation, and wholly irrelevant and unmeaning when applied to the whole nation." P. 296.

"*value* has very little application to public wealth, . . . Property is the only subject of value, and as property alone, constitutes individual wealth, those writers who confound national and individual wealth have attached very great importance to the word value, and have displayed a great deal of ingenuity and talents in investigating its nature and cause, and in endeavoring to fix upon its true standard." P. 56.

"If there be no distinction between national and individual wealth, ... a treatise on national wealth will be a treatise on individual wealth, *et e converso.* This is degrading the

to him that a statesman will know and must know, over and above that, how the productive power of a whole *nation* can be awakened, increased and protected, and how on the other hand they are weakened, laid to sleep, or utterly destroyed; . . . ." P. 356.

"The prosperity of a nation is not, as Say believes, greater in the proportion in which it has amassed more wealth (*i. e.*, values of exchange), but in the proportion in which it has more developed its powers of production." P. 144.

dignity of the science of political economy into a paltry science of dollars and cents! Upon this supposition, it becomes the business of the political economist to teach individuals how to get rich, instead of teaching legislators how to legislate." P. 156.

"the comparative wealth of different nations will always depend upon the extent of this capacity. If one nation in proportion to its population, possesses a greater capacity for acquiring the necessaries and comforts of life than another, it possesses a greater share of national wealth." P. 48.

"So, if one nation has made greater improvements in the arts of sciences and in agriculture; if its lands are in a higher state of cultivation, if its roads, bridges, canals, mills, buildings and improvements are in a greater state of perfection than those of another nation, it has for all these reasons a greater capacity for acquiring the necessities and comforts of life, and therefore possesses a greater stock of national wealth." P. 50.

Raymond and List, alike, reject the economic system of the school of Adam Smith, on the ground that it is individual economy, not public, or *political*, economy; they both specifically deny the assumed harmony of interests between the individual and society; they both insist on the recognition of nations as organic unities; they both make *political* economy the science which regards the interest of the nation, as such, rather than the interest of the individual or the race;

they both reject *value*, denying it any place in a true theory of *political* economy; they both make national wealth to consist, not in commodities, as does private wealth, but in "capacity," or "productive power;" they both accordingly reject Smith's classification of productive and unproductive labor; they both reject his arguments for the international division of labor and free trade; they both advocate, in opposition to this, the harmonious development in each nation of agricultural and manufacturing interests; and they both repudiate *laissez faire*, and look to the government to conserve and develop national wealth.

This seems a rather unusual number of *coincidences* of thought, yet in themselves they are not sufficient to warrant the conclusion that List took his ideas bodily from Raymond. List himself says he was largely influenced in his conclusions by his study of American conditions;[1] and it is, of course, entirely possible that from a study of the same phenomena they were both led to the same ideas. The coincidences here noted are, however, sufficient to sustain the contention that Raymond at least anticipated List in the essential features of his system; and there are other circumstances which so strongly suggest the possibility that List was an unacknowledged debtor to Raymond, that to harbor the suspicion hardly exposes one to the charge of rash judgment.

In his American letters List hints at the genesis of his ideas, and in the preface to the first edition of his "National System," he goes into more detail of the history of his mental development in the matter of political economy. In this preface he states that as early as 1818 he "was not satisfied with teaching young men that science (political economy) in its present form;"[2] he had begun to entertain "doubts as to the truths of the prevailing theory of political economy."[3] Though at that time free trade seemed to him "accordant

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[1]"The National System," p. 29.

[2]*Ibid.*, p. 25.

[3]*Ibid.*

with common sense, and also to be proved by experience," as seen in France and Great Britain, yet he saw in "the wonderfully favorable effects of Napoleon's continental system, and the destructive results of its abolition," things that seemed to him to be directly contrary to what he had previously observed. Then it was that the idea of "*the nature of nationality*" came to him and "he perceived the distinction between *cosmopolitical and political* economy." In 1819 he was adviser of the German commercial league, and was waging a newspaper war with "an innumerable army of correspondents and leader writers, from Hamburg and Bremen, from Leipzig and Frankfort, and of this experience he writes: "In the course of the daily controversy which I had to conduct, I was led to perceive the distinction between the *theory of values* and the *theory of the powers of production*." Such is the genesis of List's system, according to his own testimony.

In List's collected works, edited by Professor Häusser,[1] there are only five articles from his pen dated prior to his departure for America, and these all belong to the years 1819-20. In these there are no symptoms of that loss of faith in the doctrines of Adam Smith, which List avers had taken place as early as this date; much less is there any shadowing forth of the principles and the system he so distinctly enunciated soon after his arrival in the United States. Even his "Outlines," published in this country in 1827, hardly show such an advanced stage of development as he claims to have reached before he had left Germany; and so far as appears from Professor Hausser's collection, the "Outlines" are less a development than a complete contradiction of all that List had held and taught before. In view of this, one would hardly expect to find in the articles List wrote for the press during his newspaper controversy with the "innumerable army of correspondents and leader writers" much trace of

[1] "Friederich List's gesammelte Schriften, herausgegeben von Ludwig Häusser." Stuttgart and Tübungen, 1850.

what is so conspicuously absent in his more carefully prepared writings of that time. But without consulting these one would perhaps not be warranted in stating authoritatively that no trace of List's new system can be found in his writings before his arrival in the United States. These writings are not available to me, and in the absence of them I have to rest my conclusion on the authority of those who have made a study of the development of List's system, and who have been in a position to consult all of his writings.

Their testimony does not bear out List's statements as to when he first separated from the school of Adam Smith. His recollection in 1841 of his mental development of twenty years earlier does not harmonize with Professor Leser's notion of that development as evidenced in List's writings. In 1819 he was, according to Leser,[1] still dominated by the free trade principle of Adam Smith, and the only exception to it which he justified was by way of *retaliation;* and he regarded it as heresy to believe that internal industry could be awakened by customs duties. In 1820 he is still insisting on the stock argument that a protective tariff only operates to divert industrial energy into lines for which a country was not fitted by nature, and thus to retard the development of the industries for which nature had particularly adapted the country; free trade was still the true system through which alone the highest degree of welfare was to be attained. He showed himself still a true disciple of Adam Smith, and urged

[1] "Die Aufgabe, die ihm gestellt war, erfüllte er in einem Geiste der sich vollständig von der freihandelerischen Theorie der Engländer beherrscht zeigte. Nicht auf die Begründung eines Deutschen Grenzzollsystems, sondern auf die Beseitigung der bestehenden Binnenzölle ist der Nachdruck gelegt; ja, nur von dem auch durch Adam Smith für berechtigt erklärten standpunkt der Retorsion wird überhaupt ein Zollsystem vertheidigt. Dagegen bezeichnet es L. als eine notorische Irrlehre, dass die inländische Industrie durch Zölle geweckt werden könne." Allgemeine Deutsche Biographie, p. 762.

that the welfare of the nation was impeded and destroyed in the same way as was that of individuals.[1]

At the very time when List claims already to have "perceived the distinction between cosmopolitical and political economy," and to have conceived his "theory of the productive powers," as opposed to the "theory of values," Prof. Leser stoutly maintains that he was still a loyal disciple of the school of Adam Smith, and engaged in defending its cosmopolitical principle of free trade.

Not only do List's "collected writings" bear out Leser in the contention that in 1820 List was still of the school of Smith, but this claim is further sustained by the fact that as late as 1822, when in exile in Strasburg, List proposed translating J. B. Say into German,[2]—a piece of work we should hardly look for in one so thoroughly out of sympathy with that author as List represents himself to have been.

Leser first finds List in opposition to the school of Smith in his "Outlines," published two years after his arrival in America; and he attributes this change of heart to the exigencies of List's new surroundings, and suggests that he found the materials for his new system ready to hand in the

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[1]Von den Schutzzöllen wird geurtheilt, dass sie zu 'Productionen zwingen, welche der Natur des Landes, zu dessen Vortheil der Zwang Statt findet, nicht angemessen sind, und diejenigen beschränken, welche seine Natur entsprechen.' Die Wirkungen des Mercantilsystems werden als traurige bezeichnet; dagegen heisst die Welthandelsfreiheit ein Ideal, "wodurch einzig nur die höchste Stufe menschlichen Wohlstandes erreichbar scheint.' Auch in andern Punkten zeigt sich der Verfasser der Denkschrift als treuer Schüler des Smith'schen Systems. Er legt auf die Bilanz zwischen Production und Konsum grosses Gewicht; es legt die Vermehrung der Ausfuhr mehr Bedeutung bei als der Verhinderung der Einfuhr und erklärt, dass der Wohlstand der Nationen auf demselben Wege behindert und geschädigt werde wie derjenige der Einzelnen." *Ibid.*, p. 763.

[2]"Da wurden Plane gemacht zu grosseren literarischen Arbeiten; Say's Nationalokonomie sollte übersetzt und erlautert herausgegeben werden." Häusser, gesammelte Schriften, p. 178.

arguments then common in the United States.[1] It was in the air, so to say, and List only caught and gave a local habitation and a scientific name to what up to that time had been floating about in a vague way in popular discussion.

The testimony of Eheberg—whose acquaintance with the writings of List is thorough—is also to the effect that List is found in opposition to the school of Adam Smith for the first time after his arrival in America;[2] and that he found his

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[1]"L. blieb seiner Vergangenheit darin treu, dass er sich wiederum auf die Seite der strembsamsten und erwerbthätigsten Klassen stellte. Freilich handelte es sich nun nicht darum, wie in Deutschland Beschränkungen des inneren Verkehrs entgegenzutreten, sondern die industrielle Bevölkerung verlangte im Gegentheil Abschliessung vom Ausland durch hohe Sätze des Zolltarifs. Diese Bestrebungen waren natürlich mit der Smith'schen Theorie, in deren Geist seine früheren Argumentationen im Wesentlichen gehalten waren, nicht zu vertheidigen. Allein ihm blieb stets die Wissenschaft den Practischen Interessen untergeordnet, und er besass Belesenheit genug in neuern Staatswissenschaftlichen Schriften, um auch mit dem Gedankenreis der Schutzzöllner, wie sie namentlich in Frankreich und in Amerika selbst aufgetreten waren, bekannt zu sein. So vermochte er zur Unterstützung der Pennsylvanischen Industriellen theoretische Erörterungen zu veröffentlichen, deren hauptgegenstand die Bekämpfung der berühmtesten volkswirthschaftlichen Schriftstellers bildete." Allg. Deut. Biog., p. 765.

"Aber auch diese Ausführungen, die der nur mit Englischen Litteratur Bekannte für ganz originell halten mag, mochten den Amerikanern nur als eine blosse systematische Formulirung von Sätzen und Anschauungen erschienen denen sie in den Verhandlungen ihrer politischen Körperschaften und in den Aussprüchen hervorragender Staatsmänner schon begegnet waren." *Ibid.*, p. 766.

[2]Während List vor seiner Reise nach America sich im allgemeinen als Anhänger der Englischen Nationalökonomie giebt, stellt er sich in Amerika, anknüpfend an thatsächliche Verhältnisse, zum erstenmal der Adam Smith'schen Richtung entgegen, indem er der Freihandelstheorie die berechtigung des Schutzzollers entgegenhällt. Schon in den Amerikanischen Broschüren finden sich einige der seitdem oft gebrauchten Argumente zu gunsten der Schutzzolle, findet sich ferner die Betoning der wirthschaftlichen Bedeutung der nationen gegenüber dem Individualismus und Kosmopolitismus von Adam Smith, finden sich die ersten Anfänge sei-

theory ready to hand in the current arguments of the American protectionists.

It would seem then that List's system and Raymond's are, at bottom, practically identical; and that List conceived the idea of his system while a resident of the United States, and some years after Raymond's work had been given to the public.

Is there any reason to believe that List was acquainted with Raymond's work? This is at least possible,—if not highly probable. In the absence of direct evidence on this point, we are left to conjecture from circumstances; and it is, in truth, harder to believe that List had no knowledge of Raymond's work than to believe that he was acquainted with it. Raymond's second edition had been given to the public less than two years before List's arrival in this country. It had not, it is true, had a wide circulation, nor commended itself to the popular reader; but it had received high praise,—even extravagant praise,—in many quarters, and had very much impressed some of the writers and thinkers of the day. It was highly thought of by men in Philadelphia, and was known to the press there. It had especially impressed Matthew Carey, who was prominent in the very organization for which List had prepared his "Outlines of American Political Economy," and who likely knew List. In his first letter in his "Outlines," List speaks as one who had been industriously delving into the literature of protection,[1] and mentions Niles' Register as one of the sources from which he had been

ner Lehre von den Productivkräften. Auch die Benützung geschichlicher Thatsachen als Beweismittel zeigt sich schon hier. Die Besonderheit seiner Nationalokonomischen Auffassung erschient noch deutlicher in den in dem Jahren 1838 und 1840 veroffentlichen Artikeln; sie findet ihren beredlesten Ausdruk in dem Nationalen System der politischem Ökonomie. Eheberg. Handwörterbuch der Staatswissenschaften. (1892). P. 1056.

[1] "After having perused the different addresses of the Philadelphia Society for the Promotion of National Industry the different speeches delivered in Congress on that subject, Niles' Register, &c., &c., it would be but arrogance for me, &c." Letter, July 10, 1827.

seeking to acquaint himself with protectionist doctrines. Had he gone back over a few numbers of the Register he would have found the announcement of the adoption of Raymond's work as the standard text book in the University of Virginia, for this item had appeared there just subsequent to the arrival of List in this country. List knew of Cooper's work, published in South Carolina, in 1826; and it seems, to say the least, "passing strange" that Raymond's work should so completely have escaped one who was attempting to acquaint himself with the literature of economics in America, who was doing this at the very time of the circulation of Raymond's book, and that too in the midst of men who not only knew, but admired the system enunciated in that book.

The sum of the whole matter, then, is this: that Raymond and List hit upon the same principles as the basis of their system of political economy; that Raymond had given his principles to the public some years before List had shown evidence of his having conceived similar ideas; and that List only gave his system to the world after he had had such opportunities for becoming acquainted with Raymond's work, that it is difficult to believe that he did not actually have a knowledge of it.

VII-VIII

THE ECONOMIC HISTORY

OF THE

BALTIMORE AND OHIO RAILROAD

1827-1853

JOHNS HOPKINS UNIVERSITY STUDIES

IN

HISTORICAL AND POLITICAL SCIENCE

HERBERT B. ADAMS, Editor

History is past Politics and Politics are present History.—*Freeman*

FIFTEENTH SERIES

VII-VIII

THE ECONOMIC HISTORY

OF THE

BALTIMORE AND OHIO RAILROAD

1827-1853

BY MILTON REIZENSTEIN, PH. D.

Sometime Scholar in Economics, Johns Hopkins University

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CONTENTS.

INTRODUCTION.

It has been the intention of the writer to present a brief history of the Baltimore and Ohio Railroad from its inception in 1826 until its completion to Wheeling in January, 1853.

The monograph has been designed as a study in the economics of transportation, and stress has been laid upon the influence of the railroad in the development of the industry and commerce of the city of Baltimore, and of the agricultural, mineral and manufacturing resources of the state of Maryland. The Baltimore and Ohio having been the first great through-route railroad projected in America, has naturally an important place in the regard of the student of transportation. The beginnings of some of the present difficult railroad problems appear in the history of this road, and these have not only been treated incidentally as they appeared in connection with the legislative, financial and mechanical history of the railroad, but have been summarized in the final chapter.

The hearty thanks of the writer are due Prof. Sidney Sherwood and Dr. J. H. Hollander of the Johns Hopkins University for their valuable aid in the preparation of this monograph.

THE ECONOMIC HISTORY OF THE BALTIMORE AND OHIO RAILROAD, 1827-1853.

CHAPTER I.

Organization of the Baltimore and Ohio Railway Company.

Towards the end of the first quarter of the present century, Baltimore was confronted by the important economic problem, how to retain its rank as a prominent commercial emporium of the United States.

Other cities were drawing away from Baltimore its valuable trade with the West by introducing improved systems of transportation.

The city of New York had led the way in this particular line of enterprise by the construction of the Erie Canal—completed in 1825—extending from Albany to Buffalo. Pennsylvania had also begun to open up its resources by a judicious system of internal improvements, mainly canals, built especially for the transportation of coal.

Virginia had not been insensible to the fact that by the construction of proper canals through the valleys of the Potomac or the James rivers, a valuable commercial intercourse might be secured with the West. Ohio, too, had begun a system of internal improvements, designed to afford a channel for the outflow of its rich products as well as to provide a suitable means of ingress for foreign commodities.

It must not be supposed that Maryland had not been

alive to the importance of internal improvements or that it had taken no active steps in that direction. As early as 1784 the states of Maryland and Virginia had conjointly granted a charter to the Potomac Company, giving it power to improve the navigation of the Potomac river from tidewater to the highest practicable point on the North Branch, and to continue it thence to Cumberland by means of canals.

But this company became involved in difficulties, and a commission was appointed by the states of Maryland and Virginia in 1821 to investigate its affairs. The commission reported that the company was hopelessly insolvent, that it was unreasonable to expect that the company would ever be able to carry out the objects for which it was incorporated, and that it was best to divest the Potomac Company of its charter and adopt some more effective mode of improving the navigation of the river. This, the report continued, could be best accomplished by the construction of a regular canal outside of the river-bed, though following its ravine, and that this would be not only the most useful and durable, but incomparably the cheapest improvement. Baltimore, it was recommended, should be connected with the projected canal by a lateral branch. This report, submitted to the legislatures of Maryland and Virginia, ultimately led to the construction of the Chesapeake and Ohio Canal.

Congress had long before turned its attention to the important question of internal improvement. As early as 1806 the United States had begun the construction of the Cumberland or National Road. This road occupied the site a part of that route along which, years before, emigration and traffic over the mountains had flowed from Baltimore.

Recognizing the importance of the canal projected along the valley of the Potomac to the West, Congress in April, 1824, appropriated $30,000 for the expenses of making a survey, estimates of the probable cost, and plans for the construction of such a canal. The results, as reported by

the committee of engineers appointed for the purpose, are exhibited in the following summarized table:

Sections.	Distances. Miles.	Yds.	Ascent. Descent. Feet.	Number of Locks.	Amount of Estimate.
Eastern	186	——	578	74	$8,177,081.05
Middle	70	1010	1961	246	10,028,122.86
Western	85	440	619	78	4,170,223.78
Totals	241	1450	3158	398	$22,375,427.69

The report of the commissioners appointed to inquire into the condition of the Potomac Company gave rise to the Chesapeake and Ohio Canal. The report of the engineers appointed by Congress, in the light of subsequent events, may be regarded as one of the direct causes leading to the construction of the Baltimore and Ohio Railroad. It was believed that the burden of payment would fall on the state of Maryland and the city of Baltimore rather than upon the national government. In consequence, when the enormous cost of the project became known, the enthusiasm in Baltimore for the construction of such a canal was considerably abated, and the hope of connecting Baltimore with the West by a still-water route seemed a forlorn one. Besides, there was the other very material difficulty that the scarcity of water in the Alleghanies at the high elevation over which the canal must pass would make its successful accomplishment problematic, even if the money needed could be raised. Baltimoreans, too, did not relish the idea of making Georgetown the eastern terminus of the canal, with Baltimore connected therewith by a lateral branch some fifty miles in length.

However, quick action was necessary on the part of Baltimore, for Philadelphia and New York had greatly encroached upon its trade. Turnpike roads were already behind the times. Canals, as had been shown, owing to the natural obstacles of a mountainous country, were entirely too expensive and would, besides, take too long a time to construct. Some new method of transportation must be found.

It is to Philip E. Thomas of Baltimore, more, perhaps, than to any other one man, that the credit of introducing railroads for passenger and freight traffic into the United States is due. Mr. Thomas was a Quaker merchant of Baltimore, and was also in 1826, president of the Mechanics' Bank of that city. He had been one of the commissioners on the part of the state of Maryland in the recently organized Chesapeake and Ohio Canal Company, but he had resigned that position after the futility of the scheme was shown.

With Mr. George Brown, a director in the bank of which he was president, Mr. Thomas began to study the new mode of transportation then being tried with success in England upon the Liverpool and Manchester Railway.[1] Evan Thomas, a brother of P. E. Thomas, and William Brown, a brother of George Brown, were both in England at the time and forwarded to their respective brothers in Baltimore, information relative to the new project. The conjoint study of the question by the two Baltimoreans convinced them that the railway was the method of communication with the West that Baltimore required. Having interested other prominent Baltimoreans in the plan, they determined to organize a railroad company for general traffic. This was the first company of the kind in America.

On February 12, 1827, a meeting of some twenty-five prominent citizens was held at the residence of Philip E. Thomas, to consider the best means of restoring to Baltimore that trade with the West that had been diverted. Various documents were read tending to show the great advantages which railways possessed over turnpikes and canals as a mode of transportation, and a committee was appointed to examine carefully into these advantages and into the general subject of railroads and report at the next meeting.

On the appointed evening, February 19, 1827, this com-

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[1] This railroad was not formally opened, however, until September 15, 1830.

mittee, through its chairman, Philip E. Thomas, presented a full account of its labors. The efforts of New York and Philadelphia to divert the western trade from Baltimore were noted, as well as the plan then being proposed to connect the tide-water of the Susquehanna, by means of a canal, with the eastern extremity of the Pennsylvania state canal, in order to secure the ascending and descending trade of the Susquehanna, with the ultimate object of securing direct water communication with the Great Lakes. But no matter how important absolutely such trade might be to Baltimore, it was of minor consideration when compared with the immense commerce of the West. Baltimore was situated one hundred miles nearer the western navigable waters than was Philadelphia, the report said, and two hundred miles nearer than New York. New Orleans was pointed out as the only city which could compete with Baltimore for the western trade.

After showing at length the advantages which the canal system had in England over the same system in America, and arguing that if England with these advantages was abandoning the canal for the railroad, America might surely do so, the report pointed out that although only one[1] railway had as yet been constructed in America, the results had been very satisfactory. So far as the competition of New Orleans with Baltimore was concerned, it was stated that the western products could be delivered in Baltimore by rail at smaller expense and with less loss than at New Orleans by boat.

The value of a system of railways in the transportation of perishable food supplies was recognized in the remark

[1] In point of fact there were two short roads in operation in the United States at this time. The first railroad built in the United States, the one here referred to, was three miles long and extended from the granite quarries at Quincy, Mass., to the Neponset river. The second was a gravity railroad, nine miles long, extending from the coal mines at Mauch Chunk, Pa., to the Lehigh river. For full descriptions of these railroads see William H. Brown, "The History of the First Locomotives in America," ch. xii, pp. 70-71.

that if the proposed railroad were built from Baltimore to the Ohio river, an extensive market in the West would at once be opened for the fish and oysters of eastern Maryland, necessarily increasing the value of the numerous fisheries and oyster-beds of the Chesapeake Bay. This would cause a large increase of traffic upon the waters of the bay, and would open to the residents of eastern Maryland a new and highly lucrative source of wealth.

This report is to-day probably one of the best records extant of ideas in 1827 regarding railroads and their economic importance. This report of the committee was adopted, and it was resolved to apply immediately to the legislature of Maryland for an act incorporating the Baltimore and Ohio Railway Company, with all powers needed to construct a railway from the city of Baltimore to the Ohio river. A committee of twenty-five persons was appointed to apply to the legislature of Maryland for the desired act of incorporation, and another committee was appointed to examine the two railways then in operation at Mauch Chunk, Pa., and Quincy, Mass.

The report of the last-mentioned committee is dated June 12, 1827, and describes at considerable length the mode of construction of the two roads examined.[1] From their investigations the committee drew the conclusions that there would probably be no difficulty in constructing the proposed railway, but that care must be exercised in the selection of the route and the application of motive power on the road, and recommended in conclusion that a deputation be sent abroad to examine the railroads in England. Following out this advice, Jonathan Knight, an engineer, and Captain W. G. McNeill, of the U. S. Topographical Corps, were sent abroad in the autumn of 1828, and returning in the spring of the following year, reported that their examinations of the English railroads led them to approve the surveys made and route proposed for the Baltimore and Ohio Railroad.

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[1] See note, p. 13.

In the meantime the task of drawing up a charter of incorporation for the proposed enterprise had been given to John Van Lear M'Mahon, a young lawyer of twenty-seven, who was at this time a delegate from the city of Baltimore to the Maryland legislature. The charter which he drew up was in all probability the first of its kind in America.[1] In consequence it is of enough interest to the student of transportation to merit a brief analysis.

The act to incorporate the Baltimore and Ohio Railroad Company was passed February 28, 1827. This act, which constituted the charter of the company, contained twenty-three sections. The earlier sections dealt mainly with the stock and the stockholders. They provided that the capital stock of the company should be three million dollars, in shares of one hundred dollars each, of which ten thousand shares should be reserved for subscription by the state of Maryland[2] and five thousand for subscription by the city of Baltimore[3] for the space of twelve months after the passage of the act. The remaining fifteen thousand shares were to be subscribed by individuals or corporations. As soon as ten thousand shares were subscribed the company was declared to be established with all the powers, rights and privileges conferred by the act. If more than fifteen thousand shares were subscribed, the subscription was to be reduced to that number by striking off from the largest number of shares or reducing all subscriptions to one share. If there were more than fifteen thousand different subscriptions, lots were to be drawn to determine which were to be excluded. One dollar was to be paid on every share at the time of subscribing, and the residue was to be paid in instalments; provided, however, that not more than one-third of

[1] Acts of Maryland Assembly, 1826, chapter 123.

[2] $500,000 subscribed under Act 1827, ch. 104; additional subscription of $3,000,000 by Act 1835, ch. 395.

[3] $500,000 subscribed under Resolutions of 1827, No. 41; additional subscription of $3,000,000 under Act of Assembly, 1835, ch. 127, and Resolutions of 1836, No. 40.

the subscription was to be demanded in any one year from the commencement of the work, nor any payment until at least 60 days' public notice of demand for payment had been given. Stock was forfeited in case any subscriber failed to pay any instalment within 60 days after it had become due.

Nine commissioners were appointed to receive the subscriptions to the capital stock, and they were to keep the books open for this purpose for at least ten successive days. The stockholders were then to elect twelve directors by ballot, and these in turn to elect a president. Each stockholder was allowed one vote for every share of stock owned by him, and voting by proxy was authorized. If the stock reserved for subscription by the state of Maryland and the city of Baltimore was not subscribed, provision was made that such stock could be disposed of by the president and directors for the benefit of the company for any sum not under its par value.

The administration of the railroad was vested entirely in the president and board of directors. They had power to appoint all the officers, engineers, agents, etc., whom they might deem necessary to transact the business of the company, with full powers of removal at will of all these employees. Further, they had power to make by-laws regulating the manner of adjusting and settling all accounts against the company, regulating the manner and evidence of transfers of the company's stock, and indeed for exercising all the powers vested in the company by the act of incorporation.

An important power was given to the president and directors by the thirteenth section, by which they were allowed to increase the capital stock of the company by the addition of as many shares as they might deem necessary, with the restriction, however, that they must not be sold below their par value. Power to borrow money and to issue mortgage bonds therefor was also granted.

The intention of the organizers of the company to build a through line from Baltimore to the Ohio river is clearly

shown by the grant of power to construct such a road. The right of eminent domain was given to the president and directors, not only as regards land, but also as regards materials needed in the construction of the road. Adequate provision was, of course, made to reimburse owners for property taken by the railroad company.

There were certain restrictions put upon the powers of the company. If the road was not begun within two years from the time of the passage of the act and completed within Maryland within ten years after the time of commencement, the act was declared null and void. Full right and privilege were reserved to the citizens of Maryland to connect with the Baltimore and Ohio any other railroad leading from the main line to any other part of the state. It was provided further that whenever the Baltimore and Ohio crossed or intersected any other road or way, the railroad must be built so as not to impede the passage or transportation of persons or property along the intersected road.

Power was granted the company to place on the railroad "all machines, wagons, vehicles or carriages of any description whatsoever which they may deem necessary or proper for the purposes of transportation." The company was allowed to charge "tolls" upon goods transported over the railroad as follows: "On all goods, produce, merchandise or property of any description whatsoever transported by them from west to east, not exceeding one cent a ton per mile for toll, and three cents a ton per mile for transportation; on all goods, produce, merchandise or property of any description whatsoever transported by them from east to west, not exceeding three cents a ton per mile for tolls and three cents a ton per mile for transportation; and for the transportation of passengers, not exceeding three cents per mile for each passenger." From this quotation it is easy to see that the railroad was regarded as a new and improved kind of toll-road. This is shown also by a provision enacting that no person should travel upon or use the road of the company for transportation without permission from the officers.

As regards taxation, it was provided that the shares of the capital stock of the company should be deemed personal estate and should be exempt from the imposition of any tax or burden by the state's assent to the act of incorporation. The Court of Appeals of the state of Maryland[1] later decided that under this section of the act the property of the road of every description should be exempt from taxation.

Provision was also made in the charter for the declaration by the company of annual or semi-annual dividends out of "the nett profits arising from the resources of the said company after deducting the necessary current and probable contingent expenses," to be divided among the stockholders according to their holdings. Wilful injury done to the road was to be punished by fine or imprisonment, or both, in the discretion of the court in which the offender was tried.

Power to open subscription books, to sell stock and to organize the company was given as soon as the act was passed by the legislature of Maryland.

The citizens of Baltimore were fully alive to the local significance of a direct line of communication with the great agricultural and mineral regions of western Maryland and Ohio. It was estimated that the district which would depend mainly upon this road for the conveyance of its products contained a population of about two million persons, or nearly one-fifth of the total population of the United States at this time. Many products of the country west of the Alleghany mountains were of little value in those regions owing to the heavy expense of shipping them to a market, and it was understood that a railroad would lead to larger shipments and the trade of Baltimore be greatly increased thereby.

As a consequence, although the subscription books were open only twelve days, from March 20, 1827, until March 31, at the Mechanics' Bank in Baltimore, at the Farmers'

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[1] Tax Cases, 12 Gill & Johnson, 117.

Branch Bank in Frederick, and at the Hagerstown Bank in Hagerstown, yet in Baltimore alone 41,788 shares were subscribed (including the 5000 shares taken by the city of Baltimore). These shares subscribed represented 22,000 individuals. Large subscriptions were also made at Hagerstown and Frederick. But as only 15,000 shares were allotted to individuals at this time, the shares were apportioned.

The Baltimore and Ohio Railroad Company was formally organized on April 23, 1827. The first board of directors elected by the stockholders consisted of Charles Carroll of Carrollton, Philip E. Thomas, William Patterson, Robert Oliver, Alexander Brown, Isaac McKim, William Lorman, George Hoffman, Thomas Ellicott, John B. Morris, Talbot Jones and William Steuart. These elected Philip E. Thomas, president of the road, and George Brown, treasurer.

The state of Virginia had confirmed the charter, March 8, 1827, and the state of Pennsylvania assented to it, February 22, 1828. The city of Baltimore was a stockholder in the railroad from its beginning, having decided by a resolution,[1] approved March 20, 1827, to take the 5000 shares of stock reserved for it by the company's charter, and provision was made for two special directors in the company to represent the interests of Baltimore.

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[1] Session of 1827, Resolution No. 41.

CHAPTER II.

Beginning of Construction. Baltimore to Harper's Ferry (1828-1834).

Immediately after the organization of the company, preliminary surveys were begun for the location of the proposed railway. The company's engineers, Colonel S. H. Long and Jonathan Knight, were assisted by several members of the U. S. Topographical Survey. After a preliminary reconnoissance covering almost all the ground within the limits of Maryland, experimental surveys of three distinct routes were made.

The results of these surveys were communicated to the president and directors of the railroad in an exhaustive report.[1] The report confirmed the opinion that the building of the road was entirely practicable, and recommended the adoption of the route along the valley of the Patapsco, and thence in the direction of Bennett's, Bush or Linganore Creek to the Point of Rocks, where the Potomac river passes the Catoctin mountain. It was decided that the construction of the road should be at once begun along this route.

Accordingly on the Fourth of July, 1828, amid a great and enthusiastic concourse of spectators, the corner-stone of the Baltimore and Ohio Railroad was laid by the venerable Charles Carroll of Carrollton, then more than ninety years old. He is said to have remarked to one of his friends after the ceremony, "I consider this among the most important acts of my life, second only to my signing the Declaration of Independence, if even it be second to that."[1]

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[1] "Report of the Engineers on the Reconnoissances and Surveys made in reference to the B. & O. R. R." Submitted April 5, 1828.

[2] W. P. Smith "History and Description of the Baltimore and and Ohio Railroad," p. 20.

Three days later the engineers began the definitive location of the road. In the Baltimore American for July 14, 1828, a notice was inserted by the railroad company to road-makers and bridge-builders, setting forth that from August 1 to August 11, proposals for grading and masonry on about twelve miles of the proposed road would be received at the office of the company. Newspapers of other leading cities of the country were requested to reprint this advertisement.

Grading and masonry work were first begun on 11¾ miles of road. The average cost per mile of this work was $17,000. The six miles of road nearest the city cost nearly four times as much as the remainder of this block of road, because the construction at the city end was begun at an elevation of 66 feet above mid-tide and had to be carried along at right angles to the courses of the streams. It was believed that by beginning the road at such a height and in such a direction, further extension would be practicable at a very much smaller cost. It was estimated that the cost of grading and masonry on the first forty miles would not exceed $8,000 a mile, and that with the most liberal allowance for laying the road with double tracks and completely fitting the rails for the reception of carriages and the application of motive power, the total cost per mile throughout that distance would not exceed $17,000. These estimates, it must be remembered, were made concerning an enterprise regarding the probable cost of which the data were meager and uncertain. As soon as the work on the first twelve miles was completed, proposals were received for masonry and grading for the next twelve miles, and the work was rapidly pushed on.

In the first annual report of the president of the Baltimore and Ohio Railroad Company, dated October 1, 1827, Mr. Thomas had called attention to the fact that the enterprise had been generally approved throughout the country, and more particularly in those sections of the West immediately interested in its success. He had noted the general willingness of land-holders to give, free of cost, necessary ground

for the road-bed. In his second report, a year later, the president again remarked with pleasure the free cessions of land along the proposed route, as well as the fact that the right of quarrying stone had been given to the contractors. The proprietors of Ellicott's Mills—now Ellicott City—had also donated a tract of ground for a depot. There was but one unpleasant fact—a controversy with the Chesapeake and Ohio Canal Company, the railroad company's rival, in regard to the canal company's alleged pre-emption right to certain land between the Point of Rocks and Cumberland, along the Potomac river. "This controversy will probably not retard our operations in the least degree," wrote President Thomas in 1828. He was mistaken, for prolonged litigation, much expenditure of time, money and patience, and the stoppage of the extension of the railroad beyond the Point of Rocks for two years, were the consequences arising from the efforts of the canal company to check the progress of its rival.

During the year 1828 the capital stock of the company was increased from $2,000,000 to $4,000,000 by the additional subscription of $1,500,000 by individuals[1] and by a subscription of $500,000 by the state of Maryland. This last-named subscription was obtained mainly through the efforts of Mr. J. V. L. M'Mahon, and was doubtless the first time in the history of this country that a state had granted aid to a railroad corporation. The act authorizing this subscription was passed March 3, 1828 (1827, Ch. 104, Sec. 3).

Early in January, 1828, a memorial to Congress had been drawn up by the president and directors of the company, petitioning for a subscription by the United States to the company's stock. The Senate committee to which the memorial was referred reported a bill authorizing a subscription of $1,000,000. The committee of the House of Representatives also made a favorable report, but it being late in

[1] Original individual subscribers doubled their subscription, March 6, 1828.

the session when the committee reported, it would submit no bill. The company therefore renewed its petition at the next session of Congress in 1829, but, although the committees of both houses of Congress recommended a qualified subscription to the company, the measure failed. It was said at the time that the reason the company was unsuccessful in this application was because of the opposition of the president of the Chesapeake and Ohio Canal Company, who was at this time chairman of the committee on roads and canals in the House of Representatives.[1] But it must be remembered that there was in 1829 and 1830 considerable honest difference of opinion as to whether the United States Constitution gave power to the national government to make expenditures for objects not clearly national in character. President Jackson had strongly expressed his opposition to aiding state enterprises and schemes of internal improvement by appropriations from the central government.

From whatever source the opposition may have come, the company recognized that it must not hope for aid from the national government. By the fall of 1829 the grading and masonry upon twenty-five miles of the road had been completed, and the first rails had been laid in the early part of that year. Owing to the general advance in laborers' wages at this time, to the difficulty of procuring stone suitable for bridges and culverts, to the extensive and unexpected beds of rock and hard clay through which the roadbed had to be cut, and to the substitution of permanent stone bridges or embankments over valleys where it had been proposed to make use of wooden viaducts, the cost of these twenty-five miles had considerably exceeded the original estimate of $20,000 a mile. An injunction against the railroad company by the canal company in this year had at first compelled the railroad to cease its extension in Frederick county. The injunction was, however, partly set aside so as to allow the railroad to continue construction to the

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[1] W. P. Smith "History and Description of the Baltimore and Ohio Railroad," p. 22.

Point of Rocks, from which point to Cumberland the ownership of the proposed routes of the two companies was in dispute.

Upon the twenty-second of May, 1830, the first division of the Baltimore and Ohio Railroad—thirteen and three-quarters miles long, from Baltimore to Ellicott's Mills—was opened for the transportation of passengers. The cars needed for general traffic, however, were not ready until early in June, but after that time the travel on the road was constant. By the first of October, 1830, the receipts were $20,012.36, although the road had only a single track and was able to transport merchandise or produce during a few months only. The freight offered for transportation was about ten times the amount which the company was able to handle.

The sight presented on that May day in 1830, upon the occasion of the opening of the first railroad worthy of the name in America, was far less imposing than that presented upon a similar occasion to-day. There were merely a number of small open carriages, much resembling the old-style stage-coaches, with wheels so constructed as to enable them to run upon the tracks. Horses were used to furnish the motive power.

The mode of locomotive power to be used upon the road was by no means decided during the first year of the railway's existence. Evan Thomas, a brother of the president, even experimented with a car which he had fitted with *sails*![1]

The railroad, being the first of its kind in the country,

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[1] Before the experiments with the sailing car the Baltimore and Ohio Railroad made use of a "horse-power locomotive." A horse was placed in a specially constructed car and made to walk on an endless apron or belt and to communicate motion to the wheels by means of cog-wheels. The machine worked fairly well, but one day while drawing a car filled with representatives of the press, it ran into a cow, the consequence being that the whole affair tilted over and rolled down an embankment. No one was badly hurt, but the horse-power locomotive passed out of existence from that time. Brown, "The History of the First Locomotives in America," pp. 123-4.

naturally attracted much attention, and people came from considerable distances to see and travel upon this new and strange road.

The trial of the first steam locomotive on the tracks of the Baltimore and Ohio Railroad took place on August 25,[1] 1830. The locomotive, which was the first intended for railroad purposes ever built in America,[2] was the invention of Peter Cooper. It was scarcely more than a model, weighing but a single ton, and was appropriately named the "Tom Thumb." It was about the size of the hand-cars now used by workmen upon the railroad. The boiler was a small upright one, about the size of a modern kitchen boiler; its cylinder measured but three and a half inches in diameter, and its speed was gotten up by gearing. In order to secure the necessary steam pressure, a sort of bellows was used, which was worked by a pulley and cord passing over a drum on one of the car wheels. This crude machine was able to pull an open car of small dimensions from Baltimore to Ellicott's Mills, thirteen miles, in an hour and twelve minutes, and the return trip was made in fifty-seven minutes. But during a race which this engine had the same day with a similar car drawn along a parallel track by a stage horse, the band working the bellows of the engine slipped and steam-power was ignominiously beaten by horse-power.

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[1] Or Aug. 28, 1830. Saturday, according to W. H. Brown (p. 114). This account was given to Brown by Winans, who was present upon this occasion. Cooper had tried some experimental trips with his locomotive in 1829, but it did not act as well as he had expected and desired, so he changed his plan, and after some delay made his first real experimental trip in 1830.

The Tom Thumb was built at the Mt. Clare works in 1829 (Brown, pp. 107, 108).

[2] Upon the whole subject of early locomotives and railroads in America, see the work of W. H. Brown (N. Y., Appleton & & Co., 1871), "The History of the First Locomotives in America." On Peter Cooper's "Tom Thumb" see especially pages 107 to 122 inclusive, containing a cut of the engine and an extract from a lecture delivered by Mr. H. B. Latrobe, legal counsellor of the company, before the Maryland Institute in 1868 upon the history of the Baltimore and Ohio Railroad.

Nevertheless the tiny engine was used for some time with success upon the road.

The question of granting to the company the privilege of laying tracks through the city of Baltimore from its depot on Pratt street near Poppleton to the basin or harbor, so as to facilitate the transportation of goods intended for export, directly to the vessels into which they were to be loaded, was a question which caused many heated controversies. In spite of all opposition the company prevailed, and in April, 1831,[1] the City Council gave permission to lay the proposed tracks to the basin and thence parallel to the entire water-front of the city as far as Jones Falls. At this point, the city conveyed to the company two squares of ground very favorably situated for the economical and convenient transaction of the business of the railroad.

The work of finishing the railroad as far as the Point of Rocks had meanwhile been going steadily on, and on December 1, 1831, the road was opened to Frederick, a distance of 61 miles. Frederick was not directly upon the main stem of the road, but was connected with it by a branch road 3½ miles long. On April 1, 1832, the road was opened to the Point of Rocks. Including the Frederick branch, this made 72½ miles of the road in active use after this date. With the double track, switches, sidings, etc., 130½ miles of track had now been completed.

The extension of the railroad to the Point of Rocks had an immediate effect upon that place. Several warehouses were erected; inns, dwellings and other improvements rapidly rose. The facilities for the transference of produce from the Potomac river to the railroad were ample, and the boatmen and farmers further to the west resorted more and more to the Point of Rocks as the most convenient spot from which to reach the Baltimore market.[2] It was stated also that every species of agricultural product, lime,

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[1] By act of Baltimore City Council, Session of 1831, Ordinance No. 18. Approved April 4, 1831.

[2] Sixth Annual Report of the B. & O. R. R. Co. (1832), p. 4.

timber of various kinds, and even paving-stones had been brought to Baltimore with profit to those making use of the road. In return (although at an enhanced toll, yet still with equally profitable results) plaster of paris, coal, boards, bricks and scrap iron had been sent into the interior. The existence of the road had also brought into use articles, in the sparsely settled country through which the railroad passed, which had before been valueless to their possessors. Forests and quarries hitherto useless became sources of new profit to the owners.

The mode of construction of the road to the Point of Rocks was various and was in the nature of a series of experiments.[1] The combination of the iron rail on granite, the wood and iron rail on stone blocks, the wood and iron rail supported by broken stone, the same supported by longitudinal ground-sills instead of broken stone, the log rail formed of trunks of trees worked to a surface on one side to receive the iron and supported by wooden sleepers, and the wrought-iron rails in use on the English railroads, had all been tried and formed at this time parts of the work. In general, stone, wherever easily obtainable, had been preferred to wood for supporting the rails, because of its supposed greater durability, but subsequent experience proved that this preference was without good reason.

By this time any question as to the suitability of the railway as a mode of transporting persons and merchandise was practically settled by the successful operation of this road. The important question to settle was the kind of locomotive needed. It was evident that horses would not suffice for the long distances and the heavy traffic, and that steam must be employed. It was thought that the English locomotives were not adapted to this American railway, with its steep grades and sharp curves—some of them not more than 400 feet in radius. The Peter Cooper engine was

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[1] Almost total reconstruction of this portion of the railroad was necessary within 10 years.

altogether inadequate. It was determined to advertise for American locomotives.

On January 4, 1831, the company published a notice offering $4,000 for the most approved engine which should be delivered for trial upon the road on or before June 1 of the same year, and offering $3,500 for the engine adjudged the next best. It was specified, among other things, that these engines must burn coke or coal; must consume their own smoke; must not exceed three and a half tons in weight; be capable of regularly drawing on a level road fifteen tons fifteen miles per hour; steam pressure not to be over 100 pounds per square inch; company to have the right to test boilers, fire-tubes, cylinders, etc.; each engine to be provided with two safety valves, one of them out of reach and control of the engineer; engine and boiler to be supported on springs and to rest on four wheels, with the top of the chimney not more than twelve feet from the ground, and to be fitted with a mercurial gauge with index to show the steam pressure above fifty pounds per square inch and constructed to blow out at 120 pounds, etc., etc.

When the time specified for the trial had arrived, three locomotives were submitted for competition. But one, called "The York," (from its having been built at York, Pa.), stood the test. It had been built by Davis and Gartner and weighed 3½ tons. It was mounted on wheels such as those on the common cars, thirty inches in diameter, and ordinarily made the trip between Baltimore and Ellicott's Mills, drawing four cars, making up a gross weight of 14 tons, in one hour. On straight parts of the road and for short distances it had reached the speed of thirty miles an hour. It easily ran over curves as small as 400 feet radius, but owing to its light weight was of little use when heavy grades were to be ascended. The success of this engine and the satisfaction that it gave in its regular use after its trial led President Thomas to remark in his annual report in 1832 that the engine was but "as the commencement of a series of experiments which will even more fully than has yet been

done, prove the adaptation of steam and railroads to every part of our country and for all purposes of trade and travel." During 1832 a number of other mechanics and inventors were engaged in the construction of locomotive engines. Davis and Gartner placed a second engine, the "Atlantic," upon the rails of the Baltimore and Ohio Railroad during that year, and this engine proved quite as successful as their first one.

In 1832 the controversy so long pending between the Chesapeake and Ohio Canal Company and the Baltimore and Ohio Railroad Company came to a final settlement. The Court of Appeals by a vote of three judges to two—the sixth judge of the court being ill and not voting—reversed the decision of the Chancery Court of Maryland and sustained the contention of the canal company in its claim to a prior right of way between the Point of Rocks and Harper's Ferry. The railroad company was not to appropriate or use the land between these points until the canal company had laid out its route. It was believed that the canal company would probably use so much of the narrow available space between these points as to exclude the railroad.

The railroad company, beaten in the courts, had still several alternatives left. It might continue the road alongside the canal between the two points in question upon such ground as the canal company might leave vacant; it might cross the Potomac river at the Point of Rocks and continue its line along the Virginia shore of the river; it might tunnel through the mountain spurs; finally, it might succeed in procuring permission from the canal company to construct jointly the two works from the Point of Rocks to Harper's Ferry.

The last-named plan was the first one tried. While the case had still been in the Chancery Court, the chief engineers of the two companies, acting as commissioners of the court, had reported that from surveys made by them the plan was feasible and that its execution would involve an increased cost of about $7,000 to each company. In the

proposition submitted by the railroad company to the canal company, the former offered to bear the whole increased expense of the undertaking ($14,000) if the canal company would permit the proposed joint construction. This offer the canal company declined, on the ground that it might work harm to the canal.

The legislature of Maryland now intervened. Both enterprises were of too much value to the state and to the country at large to permit the usefulness of either to be impaired by friction between them. A resolution was first passed by both houses of the legislature urging an accommodating spirit upon the canal company towards the railroad company and a modification of the plan of the canal so as to permit the joint construction of both enterprises. In answer to this appeal the railroad company offered to construct the canal at the price at which it had been put under contract, to complete it by a fixed date, to guarantee it to stand for five years, and to keep it in thorough repair during that time. To this offer the canal company proposed that the railroad company should devote the unexpended portion of its capital to the completion of the canal to Cumberland and abandon for the time all idea of continuing the railroad beyond the Point of Rocks.

The railroad immediately rejected this offer as unreasonable. Things were, therefore, again at a standstill. In the legislative session of 1832-33 the Committee on Internal Improvements in the House of Delegates was directed to examine the region in question and to report upon the feasibility of joint construction of the two works. This report was so hostile to the canal company that relations became all the more strained. Matters looked very dark for the extension of the railroad in Maryland, when it was proposed to appoint a joint committee of the two branches of the legislature for the purpose of harmonizing the differences between the two companies without attempting to force concessions.

The proposition was favorably received, the committee

was organized, and investigations were made with the co-operation of the companies interested. A report, embodying a compromise, was submitted, and a law, practically the same as the compromise report, was passed by the legislature, March 22, 1833.

By this law the consent of the canal company to the joint construction of the railroad with the canal through the region between the Point of Rocks and Harper's Ferry was recorded. It was provided, too, that when completed to Harper's Ferry the railroad was to subscribe for 2,500 shares of the stock of the canal company, and that the railroad company was to be allowed to begin the construction of its road at the Point of Rocks at any time after May 10, 1833. The canal company was bound to prepare the road-bed through the passes of the Point of Rocks for one hundred thousand dollars and to bear the expense of any additional cost of grading. The width of the canal was to be maintained at fifty feet, but if the railroad became impracticable at any point in the passes with the canal fifty feet wide, its width might be contracted to forty feet, if the commissioners—provided for in a subsequent part of the law—deemed necessary. The canal company was given the right to grade the road-bed within a limited time, preserving a greater width for the canal than forty feet if it differed in opinion with the commissioners.

The railroad, on the other hand, was to have a breadth of not less than twenty feet through the passes of the Point of Rocks, and a curvature of not less than 400 feet radius, and a grade not greater than thirty feet to the mile. To determine points at issue between the two companies, as to the construction of the road, a board of commissioners was to be created, composed of three engineers, one to be chosen by the canal company, one by the railroad company, and the third by the President of the United States. These commissioners were to determine the damages payable by the railroad company to the canal company for any interruption—during the construction or in consequence of it—

of the use of any part of the canal. It was provided, too, that a fence was to be erected, under the direction of the commissioners, between the two works, sufficient to secure the horses used on the canal from accidents from the passage of the locomotives. It was found, however, that a fence was out of the question, because it would act as a barrier to the free flow of melted snow and mountain washings which would thus accumulate and flood the tracks. Therefore the railroad company was obliged to use horses to draw its cars between the Point of Rocks and Harper's Ferry until the objectionable clause was repealed.

Under this compromise act the railroad company paid the canal company $266,000 in monthly instalments, which amount President Thomas of the Baltimore and Ohio said that he did not consider more than sufficient fully to cover, as was intended, the cost of construction of those portions of the railroad which the canal company had undertaken to build, as well as to indemnify it for the loss and damage to which the canal company, during the period of construction, must necessarily be subject. Besides it was important for the railroad to reach Harper's Ferry as soon as possible.[1] Among the chief reasons for this was, that at that point was the northern terminus of the Winchester and Potomac Railroad, which bade fair to transfer to the Baltimore and Ohio Railroad at Harper's Ferry, the passengers and produce gathered along its thirty miles of route in Virginia. Winchester, itself a thriving town, would be brought thus into close connection with Baltimore, probably to the mutual advantage of the two places.

Persons who had invested their money in the railroad were evidently becoming impatient for some returns, for President Thomas in his report in 1833 remarked that the board of directors saw that much was still to be done before those pecuniary advantages originally anticipated could be realized to the stockholders. Indeed, instead of having

[1] Seventh Annual Report of the B. O. R. R. Co., p. 5 (1833).

money to distribute among the stockholders, the need of funds to continue the construction of the railroad was so urgent that at the session of the Maryland legislature of 1833 the state treasurer was authorized to pay to the company the whole of the state's subscription to the stock. The Mayor and City Council of Baltimore also having passed an ordinance to the same effect as regarded the city's shares of stock, the company found itself in possession of the necessary resources to continue the road to Harper's Ferry. The canal company having built the railroad through the passes of the Point of Rocks, and the railroad company, with the necessary additions to its resources, having been able to continue the construction at the point the canal company had left it, the whole route to Wager's Bridge, a point opposite Harper's Ferry on the Maryland side of the Potomac, was opened on December 1, 1834. Here the further progress of the railroad ceased until the summer of 1836, when surveys for the extension of the road westward were begun.

Although there was a general decline in the business of the country at large during 1834, yet there was a steady increase in the business of the Baltimore and Ohio Railroad. To this the president of the railroad calls attention in his report for that year,[1] saying that this increase was not attributable to the augmentation of business from any one place, but due rather to the multiplication of places with which trade was carried on by means of the railroad. The expenses of the railroad had also been reduced by the economical employment of steam power.

As the Baltimore and Ohio Railroad was the foremost of the railroads in America, it had to solve many problems in the technique of railroading during the early years of its existence, and many improvements in locomotives, rolling stock and road-building were introduced by the engineers and mechanics of the road.

Beginning in 1830, experiments were made to test the

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[1] Eighth Annual Report of the B. & O. R. R. Co. (1834), p. 12.

comparative resistance of cars equipped with the Winans anti-friction boxes and those with hardened steel journals and chilled bearings. The friction on a straight, level road was found to amount to $\frac{1}{240}$ of the load in the case of the latter equipment and to $\frac{1}{400}$ part of the load with the Winans invention. The combined cylindrical and conical car wheels, which allowed cars to go safely around sharp curves of a small radius, and which were especially useful in turning the corners of city streets, were the invention of Jonathan Knight, then chief engineer of the road.[1] When locomotives took the place of horse-power, the light coach wheels were replaced by cast-iron wheels, to the perfection of which Ross Winans, John Elgar, Jonathan Knight and Phineas Davis all contributed. Thousands of these cast-iron wheels were made at Ross Winans' shops, not only for American roads, but also for export for German and Swiss roads, where they were used up to 1851.

Next to the improvements in steam locomotives during these years the most striking development was probably that made in the cars. These, built originally very like the stage-coaches of the day and mounted on four light cast-iron wheels, were gradually changed and improved, owing to the demands for greater steadiness and convenience in coaches, until in his report dated October 1, 1833, the superintendent, Ross Winans, announced that he was building three car bodies to form one coach on eight wheels to carry sixty passengers. This was the beginning of the modern eight-wheel car.[2] Soon after, eight-wheel cars were used through-

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[1] The credit for this invention was claimed by James Stimpson, an inventor, originally from Massachusetts, who was also the inventor of jointed axles for railroad cars, and who claimed that he had invented the mode of placing rails so that cars could with safety go around the small curves of city streets. James Stimpson had a long series of suits in the courts in order to protect his inventions, some of which suits he won.

[2] Winans patented the eight-wheel car, but the courts decided adversely to his claim, on the ground of prior use, in that two four-wheel cars connected by a pole and "bolster" (the use of which on the B. & O. to carry 40-foot timber stringers had sug-

out the line for both passenger and freight traffic, and special cars were provided for baggage, which had before this time been carried in racks upon the tops of the coaches.

In September, 1832, steel springs were first placed upon the locomotive "York" and its tender, which experiment was so successful that springs of steel were also put on some freight cars with equal success. By the summer of 1833 it was thought advisable for the company to begin the manufacture of its own engines and to keep them in repair, rather than have all these things done by contract, as had theretofore been the case. Accordingly the company began to erect shops in Baltimore where the great Mount Clare works now stand. Up to July, 1834, the company had had but three locomotives, the "York," the "Atlantic," and the "Franklin." Many cars, especially freight cars, were still drawn by horse or mule power. By the fall of 1834 five more locomotives, all American built—the "Traveller," "Arabian,"[1] "Mercury," "Antelope" and "American," the last two having been built in Baltimore—were put upon the road. Eight more locomotives had been ordered and were then under contract.

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gested the idea of an eight-wheel car to Winans) had already been generally used, as well as a similar arrangement for transporting large blocks of granite at Quincy, Mass. Cf. Address of Prest. Mendes Cohen before American Society of Civil Engineers, 1892, p. 551 of the "Proceedings," etc.

[1] This was the type of the famous "Grasshopper engine."

CHAPTER III.

Extension. Harper's Ferry to Cumberland. (1834-1842.)

By the compromise with the Chesapeake and Ohio Canal Company the Baltimore and Ohio Railroad Company had agreed not to continue its road along the banks of the Potomac beyond Harper's Ferry until the canal should be finished to Cumberland, provided that this were done within the time allowed by the charter of the canal company. The route to the West through Virginia was open to the railroad, but the president and directors did not at this time deem it advisable to extend their railroad through that state.

The eight annual report of the railroad (1834) announced that in the opinion of the board of directors " the immediate interest of the stockholders as well as of the city of Baltimore and the state of which Baltimore is the heart and emporium, now lies in the completion of the Chesapeake and Ohio Canal to Cumberland. For the present, therefore, the board would not think of making the railroad parallel to the canal, even if it had the power, but taking up the route where the canal terminates at Cumberland, would push the railroad across the mountains upon the trace originally intended for it and to the point of its original destination. The two enterprises would then be united in interest, instead of hostile, and jointly afford the desired communication from Baltimore to the West."[1] This plan was, however, not carried out.

In the last report issued by Philip E. Thomas as president of the railroad company,[2] attention is called to the fact that in spite of many obstacles the business of the road had

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[1] Eight Annual Report B. & O. R. R. Co. (1834), pp. 14-15.

[2] Ninth Annual Report B. & O. R. R. Co. (1835), p. 4.

increased during the fiscal year ending October 1, 1835. Acknowledgment is made of the liberal policy of those Baltimore merchants to whom the new trade of the interior of the state and the West generally had been directed, and of their title to the thanks of the railroad company and the community generally for the efforts they had made to render the Baltimore market popular and attractive in those sections of the country where hitherto it had been but little known.

This was a time of considerable activity in railroad construction. The Baltimore and Port Deposit Railroad when completed would connect with a system of railroads running from Port Deposit through Philadelphia to New York, giving a through route from that city to Washington, or from New York through Baltimore and via the Winchester and Potomac Railroad—with which the Baltimore and Ohio Railroad was now practically connected—to Winchester, situated in the heart of Virginia, about 115 miles from Baltimore. The town of Chambersburg in Pennsylvania desired to secure connection with these arteries of commerce and asked for an examination of the country between that place and the terminus of the Baltimore and Ohio Railroad at Harper's Ferry. In accordance with this request, Benjamin H. Latrobe, later the chief engineer of the Baltimore and Ohio Railroad, was detailed for the duty. He reported that a railroad 45 miles long would connect the two points, and that one inclined plane with stationary power would be necessary. The cost of such a road he estimated at about $10,000 per mile. However, nothing more was done in regard to this proposed road at this time.

The cities of Pittsburgh and Wheeling were both desirous of being connected with Cumberland by railroad. At the request of the people of Wheeling, Jonathan Knight, the chief engineer of the Baltimore and Ohio Railroad, made a reconnoissance between these points in the summer of 1835. He reported that the mountains between Cumberland and the western waters could be passed by locomo-

tives and their trains without the use of stationary power or inclined planes, and that a road to Pittsburgh was just as practicable as one to Wheeling. The directors of the Baltimore and Ohio Railroad were of the opinion that the means by which these proposed roads were to be constructed ought to come from all those interested in the completion of the work, since such a line would be for their mutual advantage. Therefore it was proposed that the state of Maryland, the city of Baltimore and individual subscribers should furnish the means to build the railroad from Harper's Ferry to Cumberland, and that Pittsburgh and Wheeling should supply the funds necessary for the construction of their respective branches from Cumberland. The total expense of building these proposed roads was roughly estimated at $4,600,000. Some time before, the city of Wheeling had tendered a subscription of $500,000 for this purpose. This plan was not immediately carried out, although the railroad was completed to Wheeling in 1853, and later on to Pittsburgh via the Pittsburgh and Connellsville Railroad, a branch of the Baltimore and Ohio. In both cases aid for the construction of the road came from the city to which the railroad was extended.

At the December session of the Maryland legislature of 1835-36 the board of directors of the railroad asked for aid from the state in order to complete the railroad to Pittsburgh and to Wheeling, and at about the same time a similar application was made to the Mayor and City Council of Baltimore. The city responded by resolving to subscribe the sum of three million dollars ($3,000,000) to the capital stock of the company whenever the legal difficulties[1] which prevented at that time the extension of the railroad in an unbroken line from Harper's Ferry to the western waters should be removed. In the legislature the bill to aid the railroad was opposed and postponed until the extra May session. In the meantime a largely attended convention

[1] Agreement with the Chesapeake and Ohio Canal Company.

was held in Baltimore, to which delegates from Pittsburgh and Wheeling came, and in which various subjects connected with the internal improvements of the state were fully discussed.

One result of this convention was that at the May session of the legislature a law[1] was passed, containing among other subscriptions for the furtherance of internal improvements in Maryland, one of three million dollars ($3,000,000) to the capital stock of the Baltimore and Ohio Railroad. The same law released the company from the restrictions that prevented the extension of the railroad westward from Harper's Ferry, and thereby enabled it to comply with the condition annexed to the subscription by the Mayor and City Council of Baltimore. But before the law could go into effect the assent of both the Chesapeake and Ohio Canal Company and the Baltimore and Ohio Railroad Company was necessary. The consent of the railroad company was, of course, immediately forthcoming at a general meeting of the stockholders, July 18, 1836. Not so, however, with regard to the canal company. Old jealousies and contentions had not been forgotten and the canal company took no action in the matter. The directors of the railroad company were authorized by the stockholders to endeavor to secure the canal company's assent to the law. The directors of the railroad finally succeeded by means of a written agreement in removing the apprehensions of the canal company that any of the provisions of the law regarding the joint construction of the railroad and the canal would, if carried into operation, materially impair the permanence or usefulness of the canal, and after considerable delay the law went into effect. The subscription of the state treasurer for 30,000 shares was received September 23, 1836, and that of the Mayor of Baltimore, September 27, 1836.

The subscription of $3,000,000 by the state was made to depend upon certain important conditions. The stockhold-

[1] Acts of 1835, ch. 395. Passed June 4, 1836.

ers of the railroad company in general meeting were to bind the company in a written agreement to guarantee to the state of Maryland after the expiration of three years from the payment by the state of each of the instalments on the stock subscribed, the payment from that time on, out of the profits of the company, of six per cent per annum, payable semi-annually, on the amount of the money paid to the company, until the clear annual profits of the railroad should be more than sufficient to discharge the interest payable to the state of Maryland, and adequate, besides, to a dividend of six per cent per annum among its stockholders. Thereafter the state was to receive upon the stock it held a perpetual dividend of six per cent per annum out of the profits of the company as declared from time to time, and no more, and all the profits above six per cent per annum were to be distributed among the other stockholders according to their interests in the company. In consideration of this guarantee of interest to the state, the railroad company was authorized to increase the charge for transportation of passengers to any amount not exceeding one cent per mile for each person, in addition to the charge already authorized to be made by the company, making the aggregate four cents per person per mile.

The guarantee required of the stockholders was given at a general meeting held in Baltimore, July 18, 1836.[1]

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[1] This "preferred stock" has had an interesting history. The state of Maryland paid its subscription in 5 per cent sterling bonds, which could not be sold advantageously for many years. At the time of the receipt of the bonds the company charged itself on its books with the bonds at their face value, $3,200,000. The account stood in that form until September 30, 1853, when it was closed with an entry of $3,000,000 to "preferred stock" and the transfer of $200,000 to the account of "Interest west of Cumberland." This "preferred stock" was sold by the state of Maryland (Md. Laws, 1842, ch. 301), and eventually about $1,000,000 worth came into the possession of the Johns Hopkins University. Six per cent interest was paid on this stock until the half-year ending June 30, 1896, when further payment was refused. This has led to the case now in the Circuit Court of the United States for the District of Maryland (The Mercantile Trust Company vs. The Balti-

The president's report for 1836 reveals the unsatisfactory financial condition of the road. The following table of rates is quoted to show, by comparison with charges authorized by the laws of other states, that the rates on the Baltimore and Ohio as fixed by law were too low.

Railroads.		Persons per mile.	Goods per ton per mile.
Petersburg		5 cents.	10 cents.
Winchester and Potomac		6	7
Portsmouth and Roanoke		6	8
Boston and Providence		5	10
Boston and Lowell		3½	7
Mohawk and Hudson		5	8
Baltimore and Ohio	Old law	3	Eastwardly 4
	New law	4	Westwardly 6

In the absence of competition other than the Chesapeake and Ohio Canal, the railroad might profitably have raised its rates much higher had there been no legal restriction. As it was, not only was no dividend declared during the fiscal year ending October 1, 1836, but the six million dollars subscription of the city and state not having been available, an instalment of five dollars per share of stock had to be called for. The revenues had fallen off—a sign portentous of the crisis of 1837—and the expenditures had been heavy. The cost of constructing the viaduct over the Potomac river at Harper's Ferry was very great, and a large and constant outlay was required for new engines and cars. Extensive repairs had been necessary, for the railroad as originally constructed was largely experimental and many parts of it were ill calculated to stand the strain of the heavy

more and Ohio Railroad Company et al. in re Johns Hopkins University, petitioner), the point of which is to decide whether the interest must be paid or whether the provisions of the law of 1836 have been complied with and the railroad company released from interest payments on this stock unless that interest is earned on the whole capital stock of the railroad.

traffic for which it soon began to be used. Therefore the accruing revenue for these purposes was used in anticipation of the payments on instalments of stock. In fact the above instalment of $5 had been called for in order to repay money borrowed. To offset this, the amount that had been applied to construction of the main stem, and not to general expenses other than construction, was to be divided by the number of shares of stock of the main stem and each share credited with its proportion as so much paid in. It was contended in this report that the reason that the Baltimore and Ohio did not pay was because it was not completed. All the railroads in the country that had been completed were paying very well, it was claimed.

The legislature at its extra session in May, 1836, had passed another law of importance to the railroad. By this act the company was released from its obligation to erect a board fence between the railroad and the canal from the Point of Rocks to Harper's Ferry as a condition precedent to the use of steam between the two places, provided that the railroad company would first tender to the canal company the price of a "post and rail fence" for that distance. As the construction and existence of such a fence had been impracticable, the railroad company had been compelled to use horse and mule-power between these points at a great expense.

The tenth annual report also gives an account of reconnoissances and surveys of the route along the Potomac westward from Harper's Ferry and of the country west of Cumberland as far as Wheeling. Mention is also made of an extension by the Maryland legislature of the time allowed for the completion of the main stem of the railroad within the state from July 4, 1838—the time fixed by the act of incorporation—to July 4, 1843.[1]

Louis McLane assumed his duties as president of the Baltimore and Ohio Railroad in April, 1837, and his first

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[1] By acts of 1835, ch. 245. Passed March 28, 1836.

report appeared the following October. That the year was a critical one is easily read in and between the lines of this report. The cost of constructing the main stem had exceeded the capital paid in by $202,968.94. This had been supplied by using $61,200[1] of a million dollar loan negotiated by the railroad company and payable January 1, 1854, and by notes of the company issued to the amount of $141,768.94. The last-named amount was to be paid by the two instalments on the capital stock which were due September 30 and October 31, 1837, amounting together to $150,000.

At a meeting of the directors held in July, 1837, a committee was appointed consisting of the president and five members to investigate fully the affairs of the company, to inquire into the practicability of reducing expenditures and of providing an efficient and economical organization in all departments. It was clear that the road must be in a large measure completely and promptly rebuilt in a more thorough manner than it had been built at first. It was decided that for this reconstruction the portion of the capital yet unpaid would furnish the readiest and most certain resource. In the then existing condition of the company and the money market it was felt that proper reliance could not be placed upon loans, even if they could be obtained at the heavy rates of interest then current. The revenue could thus be devoted to paying a dividend. This cautious policy the company followed.

In the fall of 1837 the sum of $15 was still due upon each share of the stock, making in the aggregate $450,000, and this was devoted to the reconstruction of the road. The stockholders were called upon to pay this sum in instalments of $2.50 each in August, September, October and November, 1838, and in January and March, 1839, respectively. During 1838 the reduction-of-expenses policy was carried out with

[1] This sum was part of the $1,000,000 loan of 1834 made by the Baltimore and Ohio to purchase stock in the Washington Branch, and represented the proceeds of the loan not required for the purpose. It was the first bond issue of the company.

success, so that the income of the road exceeded the expenditures by more than $7,000. During this year also the company made active efforts to secure the necessary funds and legislation to extend the railroad farther westward.

In the course of the year B. H. Latrobe made a full and careful report of the surveys of the country between Harper's Ferry and Pittsburgh and Wheeling. He expressed the opinion that it was practicable to locate a satisfactory route to the Ohio river, embracing both cities, at the maximum gradient of 66 feet per mile, and that with a single track of the best construction from Cumberland to both these points the whole of the work from Harper's Ferry ought not to exceed $9,500,000.

In order to extend the road to Wheeling it was necessary to secure the extension of the time during which the railroad company might have the right to build its road through Virginia. By the original permission which Virginia had given (by the confirmation of the Maryland act of incorporation of 1827), the time allowed the railroad to build in Virginia expired in July, 1838. After considerable difficulty the passage of a law[1] was obtained in 1838 extending the time five years. But this law provided that the extension of time was granted only upon condition that the road be carried into Virginia at Harper's Ferry and thence continued through that state to a point about five and a half miles below Cumberland. It was provided, too, that Wheeling was to be one of the termini of the road. Besides a subscription of $302,100[2] which had been made by the State of Virginia a short time before, this law authorized an additional subscription by the state of $1,058,420—two-fifths of the estimated cost of so much of the road as was required to be built in Virginia between Harper's Ferry and Cumberland. By this law the railroad company was compelled either to abandon altogether the extension of the

[1] Acts of Virginia Assembly, 1838, ch. 159. Passed April 2, 1838.

[2] Acts of Virginia Assembly, 1836, ch. 136. Passed March 28, 1837.

road to Wheeling or to leave the State of Maryland for nearly the entire distance between Harper's Ferry and Cumberland.

The validity of the act of the Virginia legislature depended upon its acceptance by the stockholders of the railroad, including the state of Maryland. Preparatory to accepting the act it was imperative that it should first be determined whether a crossing at Harper's Ferry into Virginia was practicable. There were two possible ways for the railroad to cross the Potomac river at this point: either to secure permission from the Winchester and Potomac Railroad Company to occupy and make use of about six miles of its road, or to secure permission from the national government to occupy a part of the government property at Harper's Ferry. The Winchester and Potomac Railroad Company refused permission to make use of its road, but in November, 1838, an agreement was made with the Secretary of War at Washington whereby the use of the government land was granted to the railroad company. At a meeting of the stockholders, November 13, 1838, at which 88,871 shares of stock were represented, the Virginia law was accepted. The principal reason which induced the stockholders to build their railroad outside of Maryland for nearly a hundred miles was that Wheeling was regarded at that time as an indispensable terminus of the road. Other considerations also operated, such as the trade which was expected to come from the fertile valleys of the regions bordering on the tributaries of the Potomac river; the avoidance of any collision with the Chesapeake and Ohio Canal, then far advanced in its construction; and finally, the much greater economy in constructing the railroad through Virginia.

From the surveys and estimates that had been made, it was calculated that the difference between the cost of constructing the road through Virginia and through Maryland would be not less than $2,083,917 in autual outlay in money, and really equal to not less than $2,625,400 in actual equivalent capital. When to this there was added the sum of

$2,358,420, the joint contributions of the state of Virginia and the city of Wheeling—all of which would have necessarily been relinquished had the stockholders voted to abandon the idea of constructing the railroad in Virginia—the difference in favor of following the Virginia route amounted to $4,983,420 in actual and equivalent capital. With these subscriptions from Wheeling and Virginia just mentioned, the apparent resources of the company to complete the railroad to Pittsburgh and Wheeling were as follows:

Subscription by state of Maryland......	$3,000,000
Subscription by city of Baltimore......	3,000,000
Subscription by state of Virginia.......	302,100[1]
Additional subscription by state of Va..	1,058,420[1]
Subscription by the city of Wheeling...	1,000,000
	$8,360,520

Estimated cost of completing the road..	$9,500,000
Amount subscribed	8,360,520
Amount still required	$1,139,480

The subscription of the city of Baltimore was limited by the terms of the ordinance authorizing it to the construction of the railroad between Harper's Ferry and Cumberland. It was payable in cash at the rate of not more than $1,000,000 per year. To raise this sum the city commissioners of finance were authorized to issue city stock paying six per cent interest. But the condition of the money market in 1838, 1839 and 1840 was such as to render it impossible to put these stocks on the market at par. Therefore, instead of trying to float this large amount of city securities, the city commissioners of finance at first borrowed the money needed for the instalments called for by the railroad directly from the banks of Baltimore, and in order to meet the inter-

[1] Repealed by acts of Virginia Assembly, 1846, ch. 99, sec. 3.

est on the loans the City Council levied a direct tax to cover the amount of interest for the first year. These loans were made by the banks upon deposits of city stock as security.

Later on the stringency in the money market led to a very interesting but not altogether successful financial scheme. At a meeting of the directors of the company held in the autumn of 1839 it was decided that something must be done to make the subscription of Baltimore immediately available at the par value of the six per cent city stock. Therefore it was determined to offer to contractors for their work and to the owners of land in payment for the right of way, certificates, payable when presented in sums of $100, in Baltimore City six per cent stock at par. That entire confidence might be felt in these certificates the requisite amount of city stock was to be received by the company simultaneously with each issue of certificates, and be immediately vested in two commissioners in trust for the holders of the certificates. These certificates did not promise to pay money, nor were they promissory at all in character. They conferred an absolute authority for the transfer of city stock when presented in the requisite amounts, and when this stock was received, the obligation for which the certificates had been received in satisfaction was finally cancelled. They were therefore not paper money, although they might and did circulate as currency.

The scheme was at first successful. The contractors and land-owners to whom they were offered accepted them without demur. They in turn gave them to their workmen in return for labor. Here they were again accepted and so passed on into general circulation and floated the city stocks for a while at par. By September, 1840, the payments made through this medium amounted to $515,000. The number of certificates issued and their denominations were as follows: 100 of $100 each, 6,800 of $5 each, 13,000 of $3 each, 39,000 of $2 each and 354,000 of $1 each. By the autumn of 1840 only the 100 certificates for $100 each had been redeemed in city stock. The saving of interest to the city

due to the amount of the certificates kept in circulation was considerable. In addition to the amount paid by certificates, the payments by the direct delivery of the city stock amounted by September 30, 1840, to $138,877.47. The certificates, being fundable in city stock at par not worth that sum in the market, soon depreciated in value and much injury was done to the workmen holding these certificates, who were compelled to receive them at par in payment for their labor.[1] A potent factor in depreciating these certificates was a resolution passed by the City Council of Baltimore in 1842 (Resolution No. 52) repealing the ordinances of February, 1841, allowing the certificates to be received in payment of taxes and city dues.

By this means the extension of the railroad was continued during a time when many other works of internal improvement throughout the country were partially or wholly suspended. The credit of the state also was preserved from probable impairment, for the Virginia subscriptions, afterwards repealed, were not available, and before the certificate scheme had been conceived the six per cent city stock had not been regarded as negotiable. Therefore the $3,000,000 subscription of the state of Maryland had been looked to as the means whereby the construction of the railroad was to be carried on. This subscription of $3,000,000 by the state had originally been payable to the company in cash to be raised by the sale of state currency bonds bearing interest at six per cent. These bonds were to be offered for sale first in Europe before being put upon any other market. When the attempt was made to put these bonds upon the European market the state's commissioner in Europe reported that it was impracticable to do so, and wrote that sterling, instead of currency bonds, might prove more salable. The legislature of Maryland therefore changed the bonds to sterling bonds, bearing interest at five per cent and payable, principal and interest, in London. In order to provide for the interest for three years, an amount

[1] See contemporary Baltimore newspapers and broadsides.

of bonds equal to $3,200,000 was issued and delivered directly to the railroad company in full payment of the state's subscription, the company giving the requisite guarantee for the payment of interest.

Inquiries having revealed the fact that these bonds could not advantageously be disposed of either in New York or Philadelphia, President McLane went to London to endeavor to place the bonds on the European market as profitably as possible. But by the time the bonds could be prepared and forwarded to London an unfavorable change had taken place in the European market so far as American securities were concerned. Such securities had accumulated in unprecedented quantities and a general depression in their value had taken place. Many causes had combined to weaken confidence in American credit, one of the most important, of course, being the repudiation of their debts by a number of American states and the suspension of interest payments upon their public debts by others—the state of Maryland being in the latter class. The knowledge that there would be forced sales of bonds like those of the state of Maryland at extremely low rates, rendered the sale of those belonging to the company absolutely impossible, except at rates ruinous to the interests of the company and extremely injurious to the credit of the state. For these reasons President McLane would not put the bonds upon the market. Instead, an arrangement was made with the house of Baring Brothers & Company of London by which that house agreed to advance such sums as loans to the company as it might require, for which the state bonds were deposited as security. The bonds were to be put upon the market, from time to time, in both Europe and America, in such amounts as the market might seem able to bear, upon terms favorable to the credit of the state and the interests of the railroad company. The necessity for such a loan was obviated, however, for the time by the issue of the stock-orders by the railroad, as already detailed. In January and February, 1840, state of Maryland bonds were sold by Baring Bros. & Co. at 85, the proceeds netting

$21,583.68 in Baltimore. This amount was applied by the railroad company to the payment of interest which had accrued, July 1, 1840, upon those bonds that had previously been sold in small lots.

During the summer and fall of 1839 a corps of engineers was engaged in surveying and laying out the line of the railroad from Harper's Ferry to Cumberland, so as to have it ready for the contractors to begin their operations in the spring of 1840. Another company of engineers began to survey a route for the railroad about the same time from Wheeling towards Cumberland, but the difficulties connected with making available the subscriptions to the railroad caused the abandonment of this part of the enterprise for the time. Nevertheless, although it was necessary for the railroad company to spend money continually in making extensive repairs, as well as to purchase and put upon the road new locomotives and cars, and although there were great financial difficulties, the work of extending the railroad from Harper's Ferry to Cumberland went steadily on after the spring of 1840.

Dividends of 2 and 3¼ per cent were declared in the fall of 1840 and 1841 respectively, but no dividend was declared in the fall of 1842, owing to the fact that all available means were being employed in completing the railroad to Cumberland, as well as because the city of Baltimore was unable to continue payments of instalments on its subscriptions. Over $2,465,000 had already been expended in continuing the railroad from Harper's Ferry, and this would practically have been lost had the railroad not been extended to Cumberland, or at least to Hancock, some fifty miles below Cumberland. At this crisis, therefore, the whole revenue of the railroad was applied in aid of the city subscription, after having deducted from this revenue the amounts needed for operating expenses, repair of the old road, etc., etc.

With the funds thus obtained the railroad was completed to a point opposite Hancock, 123 miles from Baltimore, on June 1, 1842, and five months later it was opened to Cumberland, 178 miles from Baltimore.

CHAPTER IV.

Embarrassment and Delay.

(1842-1848.)

It was not until the spring of 1849 that the actual extension of the railroad west of Cumberland was begun. The obstacles and embarrassments that caused this delay were many.

(1) By the laws of Maryland, Virginia and Pennsylvania, the railroad company had no authority without additional legislation to occupy any more territory for the construction of the road in any one of these states after 1843. The additional legislation desired was not obtained until after the expenditure of much time and trouble.

(2) The company lacked the money necessary to finish the railroad as planned, nor was the credit of the company good enough to raise the large sums needed.

(3) Such money as the railroad company did possess was urgently needed for the reconstruction of the road between Baltimore and Harper's Ferry and for new rolling stock.

These three classes of difficulties which prevented the extension of the road will be considered more in detail.

Delays in Legislation.

The charters of the railroad as granted by the states of Maryland and Virginia in 1827 provided that the road must be finished within these states within ten years from the time of the commencement of the railroad, otherwise the charters would be null and void. A similar provision was inserted in the act passed by Pennsylvania in February, 1828, authorizing the construction of a railroad by the Baltimore and Ohio Railroad Company through that state, except that "fifteen years" took the place of the words "ten years" in

the Maryland and Virginia acts. On March 28, 1836,[1] an act was passed in the Maryland General Assembly extending the time for the completion of the railroad in Maryland to July 4, 1843. Such an act was necessary, for the road was then built only as far as a point opposite Harper's Ferry.

Even at that time the legislature of Virginia was dilatory in its action as regarded the railroad, and although the right to build in Virginia expired July 4, 1838, and the company, anxious to push the construction of the road on towards Cumberland, was doing everything in its power to secure the passage of a favorable bill in the Virginia legislature, it was not until April 2, 1838, that a law was passed extending the time allowed "for the completion of that portion of their improvement to be constructed within this commonwealth" to July 4, 1843. The other provisions of this act, upon the acceptance of which depended the extension of time, have already been treated.

But by November, 1842, the railroad had been constructed and opened only as far as Cumberland, a distance of but 178 miles. There were still two hundred miles of railroad to be built in order to unite Baltimore with "the waters of the West." A few months more and the company would have no rights of further extension in Maryland, Virginia or Pennsylvania, and by the terms of the charters conferred by these respective states the charters themselves were null and void if the railroad had not been completed within these states within the time specified.

For this last reason, even if it was impracticable to continue immediately the construction westward, it was necessary to secure a further extension of time in Maryland and in Virginia or Pennsylvania. A grant of such extension was obtained without difficulty from the Maryland legislature in 1843[2] in an act of much importance, since it not only extended the time for the completion of the railroad

[1] Acts of 1835, ch. 245.

[2] Maryland Laws, 1842, ch. 301.

in Maryland until July 5, 1863, but also provided for the sale of the state's interest in internal improvement companies and the payment of the state debts. But in spite of continued applications to the legislatures of Virginia and Pennsylvania, no acts at all acceptable to the company were forthcoming.

The Virginia legislature passed various acts granting the desired extension of time, but these laws contained so many vexatious restrictions regarding rates, taxation, routes, etc., that they were all rejected by the Baltimore and Ohio stockholders.

Finally, after a long and tedious period of application and petitioning, the Virginia legislature granted an act authorizing the extension of the railroad through Virginia on terms acceptable to the company. The act was passed March 6, 1847,[1] and accepted at a general meeting of the stockholders. This new law provided that the road was to be constructed to Wheeling according to the plans and route submitted by the chief engineer at a meeting of the stockholders held in Baltimore, July 12, 1845, with certain restrictions, however, that in order to secure to the city of Wheeling the benefit of the western terminus of the railroad, all parts thereof between the Monongahela river and Wheeling were to be opened for the transportation of passengers and freight simultaneously. The act also annulled the stock subscriptions on the part of the state of Virginia made by acts passed March 28, 1837, and April 2, 1838, which had provided for subscriptions of $302,100 and of $1,058,420 respectively. Provisions were also inserted reserving the right to connect with or intersect the railroad by other lines of transportation; obliging the company to erect certain depots, subjecting the company to the general railroad law of Virginia;[2] reserving the right of Virginia to tax the property, stock and profits of the company so far as these might be or

[1] Acts of Virginia Legislature, session 1846, ch. 99.

[2] Acts of Virginia Legislature, session 1837, ch. 118.

accrue in the commonwealth of Virginia on the same footing with other similar companies within the state; provided, however, that this taxing power was not to be exercised until and unless the net income of the railway company was over six per cent per annum upon the capital invested. The city of Wheeling was authorized to subscribe $1,000,000 to the capital stock of the railroad company upon such terms as might be agreed upon between the City Council of Wheeling and the company; and, again, that as a condition upon which the whole act was granted, the company was to "accept this act within six months and enter upon the construction of the continuation of their road hereinbefore authorized within three years, and complete the same within twelve years, after the passage of this act," *i. e.* by March 6, 1859.

So far as Maryland and Virginia were concerned, there were no further legal obstacles to the continuation of the railroad to the West. The charter had expired in Pennsylvania in 1843, and the act passed by the legislature of Pennsylvania, June 20, 1839, extending the time for the completion of the railroad in that state until February 27, 1847, was not accepted by the company, owing to the new and onerous conditions imposed by the act, especially those prescribing the route to be taken.

Financial Difficulties.

The years that were spent by the company in waiting for acceptable terms upon which to continue the extension of their railroad westward were not years wasted. At the time of the completion of the railroad to Cumberland the finances of the company were not in a condition to permit of new construction to any great extent or the expenditure of any large sums for such purposes. The money markets had not recovered in 1842 from the crisis and panic of 1837. As it was, the extension of the road to Cumberland from Harper's Ferry had only been made with much difficulty and

skillful financiering. Although the railroad company had been able to realize from the $3,000,000 subscription of the city of Baltimore,[1] yet the credit of the state of Maryland was so low that its bonds had been a failure on the London market, and but £5,250 worth had been sold at 85. This sum had not been used in construction at all, but to pay interest on existing debts. The revenues of the railroad company and a loan by Baring Bros., with the state bonds as security, had together realized barely enough to enable the completion of the railroad to Cumberland.

The period between November, 1842, and the spring of 1849—when the active construction of the road toward Wheeling was finally begun—was spent in reconstructing those portions of the road east of Cumberland which were in need of improvement, in providing adequate rolling stock and preparing to make the financial arrangements requisite to ensure the completion of the road as soon as the necessary legislation regarding the right of way had been secured. It was evident to the directors at this time that the money necessary to completion could not be then obtained. The greater portion of the state bonds in payment of the $3,000,000 subscription still remained in the hands of the company, and indeed bade fair to so remain for an indefinite period.

In 1844 President McLane went to Europe for the second time in the interests of his company, to try to secure financial aid in the London market. He returned in October, 1846, without having accomplished his object, but his examination of the workings of the English railroads resulted in his submitting to the board of directors an improved method of organizing the operations of the road. The plan was adopted in 1847 and, with but a temporary suspension during the administration of President Swann (1848-1853), remained the permanent organization of the road for many years.[2]

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[1] Session of 1836, Resolution No. 40. Approved March 17, 1836.

[2] The principal objects of the reform were to insure a proper adaptation and application of the supervisory power in each depart-

Almost immediately after the opening of the road to Cumberland it became necessary to reduce rates, owing to the fact that the Pennsylvania lines had met the prospective competition of the Baltimore and Ohio by lowering their rates considerably below those of their Maryland rival. Consequently charges for passengers on the Baltimore and Ohio were reduced about 25 per cent, and for freight about 30 per cent below the rates of the previous year. President McLane in his report[1] naïvely remarks that the Pennsylvania lines have established "rates which it is believed are not required by the public nor justified by the true interests of the works." Another disappointment to those interested in the Baltimore and Ohio was the fact that the wagon trans-

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ment to the object under its immediate charge by means of a judicious division of labor; to effect a strict responsibility in the collection and disbursements of money, and in the accounting department generally by the multiplication of checks; to confine the company's mechanical operations in the shops to the purposes of repairs rather than of construction; and to promote the economical purchase and application of materials and the objects needed in every class of service. It was believed that all these ends could be best reached by confiding the departments of transportation, of the reconstruction and repairs of the road and of the repairs of machinery to separate superintendents of "Transportation," of "Road" and of "Machinery" respectively. Each of these departments was to be subject to the immediate supervision of a professional engineer under the general direction of the president of the road. All of these officers and all of the principal agents of the road were to be subject to annual appointment, and satisfactory security was to be required from each for faithful performance of duty.

Measures were also taken that the receipt of money be confined to as few agents as possible; for prompt payment from all of moneys received by them; for a new and securely guarded system of tickets to supersede the old, loose method by which counterfeiting was invited; for the imposition of further checks upon conductors and other agents, which were thought would prove more effective in enforcing a rigid accountability from all. A daily account was required of all agents with the secretary and treasurer of the railroad under the immediate supervision of the president in the central office of the company. It was evident too that the expense of the new system would be less, and that the efficiency would be much greater, than under the older and laxer system of general superintendents.

[1] Seventeenth Annual Report, p. 4.

portation over the National Road from the West failed to supply the anticipated traffic at Cumberland. This drawback was not fully obviated until the extension of the road to Wheeling in 1853. Still the completion of the railroad to such an important point as Cumberland showed immediate results in the augmentation of traffic, bearing out the claims of the presidents and directors that the more nearly the road was completed the larger, proportionally, would the net receipts become. Thus, for example, the receipts from passengers, mails and freight, the expenses for the same, and the net receipts for the four years 1841-44—the two years before and the two years after the road was finished to Cumberland—were as follows:

	Receipts.			Expenses.	
Years.	Passengers and Mails.	Freight.	Total Receipts.		Net Receipts.
1841	$179,616	$211,454	$391,070	$239,622	$151,448
1842	181,177	245,315	426,492	216,715	209,777
1843	274,617	300,618	575,235	295,833	279,402
1844	336,876	321,743	658,619	311,633	346,986

The receipts from freight increased very rapidly after 1845.

Some such statement of the principles governing the earnings of but partially completed railroads was necessary to satisfy the demands of individuals who had their capital invested in Baltimore and Ohio stock, and who had seen very little return therefor, as well as to keep all alive to the absolute necessity of completion of the road to Wheeling, in order to realize the long hoped-for benefits that were expected to accrue from the great railroad. Although it was only too evident that the railway tracks and roadway generally east of Harper's Ferry were in need of thorough repairs, and in places even of reconstruction, and that money was needed for new rolling stock to satisfy the demands made for the transportation of goods from the region around and to the west of Cumberland, yet it was deemed expedient in the fall of 1843 to declare a dividend of 2 per cent

upon the stock of the main line of the railroad. The dividend amounted to $140,000, or 2 per cent on $7,000,000. This amount of capital. however. was not all that upon which the dividend ought to have been declared, for surplus net revenue had been reinvested, *i. e.* used as capital, from 1830 onward, and by the fall of 1843 this sum amounted to $873,-806.

In the president's report[1] in which the above facts were announced, and indeed in all the reports from this time on and up to 1852, stress is laid upon the necessity of the completion of the work as orginially contemplated, the point being made that not only would the capital invested in an uncompleted line of railroad pay no dividends, but that the commerce and prosperity of Baltimore would be irretrievably injured by lack of communication with the West.

Need of Reconstruction and New Equipment.

The history of the railroad during this period is a story—so far as the practical workings and internal policy are concerned—of a struggle to survive and to remedy the serious mistakes made in the earlier years of the company's existence. The errors which cost the company so dear in the forties were mainly mistaken economies in construction and inadequate calculations as to the cost of a great and permanent railroad through an unfavorable territory. Ignorance in regard to railroad construction was at that time practically universal in America, and there was no school save that of experience in which the directors of the early railways could learn. In so far the early errors of the Baltimore and Ohio Railroad Company were unavoidable, but the experience was dearly bought.

Early in 1846 it became absolutely necessary to reconstruct entirely the line of road from Baltimore to Harper's Ferry, a distance of 81 miles, for the road as originally built was entirely inadequate for the heavy traffic for which

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[1] Seventeenth Annual Report (1843).

it was being used. It was necessary, too, that the new "edge" rail be laid in place of the already antiquated "plate" rail. In January, 1846, the board of directors provided that thirty miles of road be immediately equipped with the new rails. The cost of this reconstruction was estimated at $316,800. The company had not the necessary funds at hand to pay for this except by taking the revenues of the road. It was possible to sell mortgage bonds on the open market only at a discount of at least ten per cent. Reasons for this were the low credit of the company, owing to its small dividends (never yet above 3 per cent), the absence of limit to the amount of bonds the company might issue and of proper provision for repayment. It was therefore resolved by the directors that the interests of the company and of the stockholders could be best served by applying net revenue to the amount of $1,000,000 to the further reconstruction of the railroad, and by issuing dividends to the stockholders up to the same amount, partly in the company's 6 per cent (second mortgage) bonds at par and partly in cash. The 3 per cent dividend declared September 30, 1846, was provided for as follows: "To all stockholders owning on the first day of October, 1846, less than 50 shares of stock, three dollars in money on each share on and after November 20, 1846; and to all similar stockholders owning 50 shares and over, one dollar on each share in money and two dollars in the bonds of the company, bearing 6 per cent interest, payable quarterly and reimbursable in twenty years." It was hoped that by these means the value of the company's bonds would be raised.

It was announced in the report of the president of the road for 1846 that owing to the state of the road necessitating not only reconstruction, but also a large future outlay on engines and cars (needed not only to replace those worn out, but also to purchase additional ones to accommodate the increasing traffic), no dividends were to be expected at the end of 1847, and that for the same reason "the dividend for the year ending September 30, 1848, will also be materi-

ally diminished." No further cash dividend was declared until May, 1856—a dividend of 3 per cent in bonds of the company being declared in 1847, and yearly dividends in additional stock of the company, *i. e.* "scrip," from 1848 to 1853 inclusive.

The work of reconstruction of the road was continued through 1847. Nearly $50,000 of the company's 6 per cent second mortgage bonds had been sold at about par, and the city of Baltimore had agreed to take $105,000 of the same securities at par as dividend. As regarded payments for the thirty miles of reconstruction authorized the previous year, the company had arranged to make part payment in the company's notes at long credit and part in the above-mentioned 6 per cent bonds at par. Furthermore, contracts had been made to the amount of $152,872 for alterations and improvements in the old track, and these contracts were to be payable also in the 6 per cent bonds at par. And finally, yet more of these 6 per cent bonds were used at par to pay the dividend of 3 per cent which was declared September 30, 1847.

The year 1848 was well spent in perfecting the workings of the railroad, in fostering economies by improvements in organization, construction and equipment, and in general preparation for the early extension of the road westward by careful reconnoissances and surveys of the region between Cumberland and Wheeling over the routes already fairly well known to the engineers. The next year witnessed the beginning of a period of renewed life, which did not end until the railroad had reached its western terminus at Wheeling.

When, in 1848, the company initiated its system of applying net revenue as capital in reconstructing and improvement and issuing stock dividends in lieu of money, it used part of this new capital in the purchase of ten first-class engines, two second-class engines, a third-class engine, 28 passenger cars and 171 freight cars. A branch of the railroad was extended to the south side of the harbor in Balti-

more, where grounds were purchased at Locust Point. This was done so that freight not intended for distribution in the city might be carried by steam to the water's edge, and the expense and inconvenience of using horse-power through the streets of Baltimore avoided. Some $200,000 were also spent in general repairs of the road east of Harper's Ferry, and in straightening and changing the defective location of the track east of the Monocacy river, so that there might be no curve of less than 600 feet radius.

CHAPTER V.

Completion. Cumberland to Wheeling.

(1848-1853.)

The administration of Thomas Swann, third president of the Baltimore and Ohio Railroad Company, covers the completion of the main stem, at that time the longest railroad in America. The construction in four years (1849-1852) of two hundred miles of railroad through the mountainous region of the Alleghanies, over ravines and rivers, through tunnels drilled in the rocky mountain-side, up steep ascents and around perilous curves, and above all, in face of a lack of the funds necessary to carry out fully the matured plans of the project, was an achievement only to be accomplished by a man of indefatigable energy, courage and indomitable will—a man at once a financier, an administrator and one possessing rare executive ability.

When Thomas Swann was elected president of the company shortly after McLane's resignation in 1848, his views on the expediency and necessity of speedy completion of the railroad to Wheeling were well known. He had already served the company as director and member of special committees appointed to secure favorable legislation for the railroad from the General Assembly of Virginia.

At a meeting of the board of directors held early in 1849, President Swann emphasized the fact that the friends of the railroad were becoming disheartened and many of the stockholders and the public generally were growing suspicious and unfriendly to the project, owing to the delays in its completion and inadequate returns upon their investments. The subscriptions of the state and city had caused an increase in taxation without any corresponding compensation. To put the railroad upon a paying basis, to ensure to Baltimore the

commerce to which by virtue of geographical situation and natural advantages she was entitled, and finally to revive some of the old enthusiasm in the friends of the company, President Swann urged that active measures be at once taken to complete the railroad not only to Fairmont on the Monongahela river (as proposed by some of the directors), but to Wheeling on the Ohio river, as had been the original intention of the organizers of the company. President Swann did not overlook the difficulties, financial and topographical, which opposed the successful completion of this plan, but showed that the sacrifices already made in building the line of road then finished were much greater than those still to be made. His address is said to have had such an effect upon his hearers that George Brown, one of the directors and with Philip E. Thomas, co-founder of the company, is reported to have risen in excitement and moved "that the chief engineer be directed to arrange to put the whole line to the Ohio river under contract as speedily as practicable." The resolution was adopted with enthusiastic unanimity.

Reconnoissance of the country lying between Cumberland and Wheeling had been made as early as 1836 under direction of Benjamin H. Latrobe, and in his report he estimated the cost of building a railroad from Harper's Ferry to Wheeling, through Pittsburgh, at $9,500,000. In 1843 preliminary reconnoissances were made in the state of Virginia of the region lying between Cumberland and Wheeling. In July, 1847, Latrobe directed the operations of three corps of engineers engaged in the location of the proposed line of railway from Cumberland westward to the Maryland-Virginia boundary line. The party of engineers having the westernmost section in hand—but fifteen miles—on the completion thereof passed into Virginia, and by the close of the season some sixty miles of the route westward from Cumberland were ready for contract. In the summer and fall of 1848, Engineer Latrobe, induced by the difficulties of a suitable route over the mountains and across the valleys of the Cheat River and Tygart's Valley River regions, secured the

services of two other expert engineers, who examined the entire region with care. The three engineers finally decided upon the routes that it would be best to follow, and reported also that in their opinion the construction of a railroad across this mountainous country was quite practicable with grades within the power of the locomotive.

All conditions at this time would have been favorable for the active extension of the road westward but for the lack of money. According to the estimate submitted by the general superintendent in October, 1849, the cost of the road from Cumberland to Wheeling was estimated at $6,278,000.

President Swann in his report for 1850 made the following exhibit of how much of this amount was to be raised, and how much of it the company then had or had already expended:

(1) Money expended for all purposes in the extension of the road west of Cumberland (Sept. 30, 1850), exclusive of bonds given for iron rails and interest	$ 934,713.56
(2) Balance of cash from sale of £200,000 5 per cent bonds	476,650.00
(3) Value of 5 per cent sterling bonds unsold (£507,500)	2,172,908.06[1]
(4) Bonds issued for iron rails (Jan. 1, 1850) at 6 per cent, for £127,500 secured by mortgage. Baring Brothers	566,666.67
(5) Revenue during progress of work, estimated at...	500,000.00
(6) Subscription of city of Wheeling	500,000.00
	$5,150,938.29
(7) Deficiency to be made up to enable the whole road to be placed under contract. Proposed to be raised by 6 per cent coupon bonds of the company	1,128,731.00
	$6,279,669.29
Estimated cost of the road (Cumberland to Wheeling) as per report of the general superintendent, Oct. 29, 1849	$6,278,000.00
[Actual cost	$6,631,721.00]

[1] The actual yield of these bonds was only $1,973,688.89, on account of their having been sold at a limit of 91 on January 3, 1851. Cf. Report of President for 1851, p. 8.

Taking into account the previous financial history of the railroad, the statement made a fairly satisfactory showing. Still it was not at all certain that the arrangements there shown could be actually carried out. Two of the items had already been financiered through by President Swann. The first deal was in regard to the Maryland state bonds issued in payment of the state's $3,000,000 subscription to the Baltimore and Ohio, and up to this time practically unsalable. These bonds were lying intact—with the exception of £5,000 sold in small lots—in the vaults of Baring Bros. of London as security for advances that that firm had made to the railroad company, and as a matter of policy, in that the opportunity for selling them would be better in London hands than in American. President Swann turned to these bonds as a means of raising revenue. They could be sold only if the credit of the state and of the railroad company[1] were raised by the active support of some such powerful London banking house as Baring Brothers. This support was secured after a long correspondence, and the London firm bought £200,000 of the 5 per cent sterling bonds of the state at a rate equal to that prevailing in the home market for the limited amount of these bonds offered for sale. It was hoped that the effect of this sale would be twofold—a reduction in the estimates of the probable cost of the road, owing to the confidence inspired by a full treasury; and a higher market rate for the remaining sterling bonds, due to the purchase made by such a conservative and powerful financial house as Baring Brothers. Both results did follow for a time, but other difficulties soon more than offset the advantages thus derived.[2]

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[1] Shares of Baltimore and Ohio stock were sold in Baltimore in October, 1848, at 28.

[2] These bonds had been sold in limited amounts below par, but in his report for 1850 (p. 15) President Swann says that these bonds with the endorsement of Baring Bros. had sold in the London market during 1850 at from 105 to 108. The absolute necessity for money to finish the road led to a forced sale of the remaining bonds to a New York firm in January, 1851, at 91, realizing $1,973,688.89.

The second deal had for its object the raising of $566,-666.67 for the purchase of iron rails, and was also consummated through Baring Brothers. The railroad company issued £127,500 of 6 per cent mortgage bonds to Baring Brothers, payable in equal instalments in January, 1856, 1857, 1858, 1859 and 1860, and received in return some 20,000 tons of iron rails from Thompson & Foreman of London. These bonds were known as the "Iron Bonds."

The deficiency of $1,128,731, the sum needed to construct the railroad according to the estimate of October, 1849, was made up by the issuance to President Swann of 6 per cent mortgage bonds to the amount needed. The bonds were dated July 10, 1850, and were payable July 1, 1875. It was deemed inadvisable to put these bonds immediately upon the market, and they were not sold until 1852, when an unexpected crisis confronted the directors. The expenses of construction were then very large, the monthly average during the previous fiscal year having been $200,000. Five thousand laborers and over a thousand horses were then being employed by the company in the construction of new road. The treasury was growing alarmingly weak and it was found that the coupon bonds could not be floated at anything like par. The railroad must be completed at the earliest possible moment. Repeated efforts were therefore made to sell the bonds at a figure favorable to both the credit and the interests of the company, but were for a long time fruitless. The bonds were finally sold at a limit of 80, the directors feeling that it was better to make this comparatively small sacrifice for the time being rather than to endanger the existence of large and varied interests by indefinite delay in the completion of the work.

Legislation regarding the railroad during the period from 1849 to 1853 was comparatively unimportant, except for an act passed March 21, 1850, by the legislature of Virginia. The reasons for the passage of this act were as follows: By the law passed by the Virginia legislature, March 6, 1847 (Ch. 99, Acts of 1846-7), it had been provided that extension

of time for completion through Virginia depended among other things upon the railroad being made to enter the ravine of the Ohio river not south of the mouth of Fish Creek in Marshall County, with the further provision "that if the said railroad by the cheapest route to the city of Wheeling, which shall not enter the ravine of the Ohio river at any point south of Grave Creek in Marshall County, shall appear from the estimates to be made as aforesaid to be *more* costly to construct, maintain and work than it would be by the route passing into the ravine of the Ohio river at or near the mouth of Fish Creek and thence to the city of Wheeling; and if, when the difference of probable cost between said two routes shall be ascertained as aforesaid, the city of Wheeling shall agree to pay to said railroad such difference of cost by the time said railroad shall be completed and opened for transportation to said depot in Wheeling (which payment it shall be lawful for the said city of Wheeling to provide for and make), then the said railroad company are hereby required to locate and construct their said railroad so that in passing to said depot in Wheeling it shall not enter the ravine of the Ohio river at any point south of Grave Creek."

Since the time of the completion of the Baltimore and Ohio to Cumberland it had been the desire of the company to build its road in as straight and southerly a line to the Ohio as possible, in order to connect with Cincinnati and St. Louis over the shortest line of road, and it was not at all desirous of making Wheeling the terminus of the main stem. The people of Wheeling, on the other hand, fearing with much reason that the more southerly the line of the Baltimore and Ohio the greater danger of their commerce and industry being unfavorably affected, owing to the short and direct connection of Baltimore and the Atlantic seaboard with Cincinnati and St. Louis, had made every effort to make the railroad take the most northerly route to their city. The citizens of Wheeling therefore decided upon the Grave Creek or more northerly route; the directors of the

Baltimore and Ohio, looking to what they considered their own best interests, decided upon the Fish Creek route. As a matter of course, controversy and dissension followed. As a consequence, the citizens of Wheeling proposed to make an application to the Virginia legislature to stop the progress of the railroad in that state. President Swann went to the legislature and succeeded in counteracting this application, but a law was passed, March 21, 1850, providing for a board of three engineers, " not residents of the states of Maryland, Virginia, Pennsylvania or Ohio, and not interested in or in any manner connected with the said company or the said city," which board was to render a final and binding decision after full investigation of the matter in dispute. From a desire to avoid further delay in the completion of the road, since the above-mentioned board of engineers had made a decision[1] adverse to the company, President Swann advised the Baltimore and Ohio stockholders, at a general meeting held in May, 1850, to give way to the desires of the people of Wheeling and build along the Grave Creek route. This was accordingly done, and what had bidden fair to be a long and stubbornly contested controversy was thus averted by the conciliatory policy of the railroad.

The city of Wheeling, by the agreement of 1847 with the railroad company, had stipulated to furnish free of charge, with the right of way through the city streets, a depot on the north side of Wheeling Creek with not less than two acres of ground. By a compromise between the city and the company the agreement of 1847 was abrogated and another made, whereby Wheeling agreed to pay $50,000 of the $78,000 estimated as the cost of the Wheeling depot. The railroad company agreed to do this because the latter sum included in its purchasing power a considerable plot of ground that would not be needed by the railroad and that, it was believed, could be sold for more than the $28,000 difference.

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[1] Cf. Report, 1850, p. 13.

It was felt that for the next few years the railway would have to depend upon the navigation of the Ohio river to a considerable extent as regarded communication with Cincinnati, St. Louis and other points beyond the western terminus of the road. But a passenger ascending the Ohio river in a steamboat could reach Baltimore in about the same time it would take him to reach Pittsburgh, since Wheeling was a day's journey by boat from Pittsburgh. The importance of a line of boats connecting with the Baltimore and Ohio schedule was clearly seen, and a company was organized in 1852 under a charter passed by the Virginia legislature, whereby a daily line of boats "of a class superior to any yet floated upon the Western waters," was to be ready to run on the Ohio by January 1, 1853, in connection with the Baltimore and Ohio to Cincinnati and Louisville.

With affairs in such a condition as regarded the future, although the company had a large bonded debt and the need of a second track and an ampler equipment soon became evident, it was no wonder that the spirits of those who had worked hard in bringing the enterprise to a successful completion were elevated and that they looked with confidence and assurance to the years to come.

While the new road from Cumberland to Wheeling was in process of construction it was the policy of the company to keep the line east of Cumberland in the very best possible condition, having by this time learned that the most expensively built railroad is really the cheapest, and that immediate and careful attention to minor repairs effects great economies. Simple and evident as this appears, it had by no means always been acted upon. Preparations were also being made to increase the capacity of the road from its limited power in 1848, so as better to meet the traffic which it was confidently felt the completion of the main stem would develop. The means by which this was done were by issuing dividends in the form of additional stock and using the net receipts, which the stock dividends represented,

as additional capital applied to construction. The following "scrip" or stock dividends were thus declared: 3½ per cent, payable in November, 1848; 5 per cent, payable in November, 1849; 7 per cent, payable in November, 1850; 7 per cent, payable in November, 1851; 7 per cent, payable in November, 1852; and 3 per cent, payable in May, 1853.

During this period of completion of the railroad to Wheeling the company made many other provisions for perfecting their road. New engines and cars were ordered, so that in January, 1853, the company had 139 engines, 96 passenger cars and 2567 freight cars. In 1852 the ground was bought upon which Camden Station, the present principal depot of the Baltimore and Ohio in Baltimore, now stands, and preparations were made to erect a suitable building and train-shed. Permission was given to the company by the city to approach the new depot by steam locomotive, thereby obviating the expense of horse-power. The Mt. Clare shops, at which 1,000 men were employed during 1852, had also been much enlarged during this period, and many improvements had been made upon the company's property at Cumberland and Martinsburg. The facilities afforded by the railroad for the cheap transportation of coal to tide-water had led to the opening and development of many mines in and around the Cumberland and Frostburg regions. The large increase in the coal trade led to the need of enlarged facilities for handling coal at Baltimore, and new wharves, fitted completely for transferring thousands of tons of coal to waiting vessels, were erected at Locust Point, not only by the railroad company, but also on private account.

The building of the new road westward proceeded rapidly and uninterruptedly in spite of financial and topographical obstacles. In the twenty-third annual report of the Baltimore and Ohio in October, 1849, President Swann was able to announce that 103½ miles had been put under contract, and those at very advantageous prices. During the next official year ending September 30, 1850, the work was pressed on. The action of the board of engineers appointed

under the act of March 21, 1850, by the legislature of Virginia had led the stockholders and directors of the company to decide to use the Grave Creek route, and work was accordingly being done upon it. In spite of the fact that there had been a scarcity of labor during the previous year, 167 miles of road were announced as under way. Some 3,500 laborers and 700 horses were engaged on this work during 1850. The rails were laid during the spring of 1851, and in July of that year the road was formally opened to Piedmont, twenty-eight miles west of Cumberland.

Not quite a year after the opening to Piedmont (June 22, 1852) the road was opened to Fairmont on the Monongahela river, 124 miles from Cumberland and but 77 miles from Wheeling. The location of this road through one of the boldest mountain regions which had yet been traversed by any work of internal improvement in America is said to have excited surprise even among professional engineers. For more than seventy miles the road had been built across a succession of mountain ranges. The Monongahela river was crossed by a viaduct 650 feet long and 39 feet above low water, the iron superstructure supported by the massive abutments forming what was then the largest iron bridge in America. Between Cumberland and Wheeling eleven tunnels were bored, making together a total of 11,156 feet in length. The three largest were 4,100 feet, 2,350 feet and 1,250 feet in length respectively. Between the same points there were 113 bridges with a total length of 7,003 feet and ranging from 12 to 205 feet span.

On Christmas Eve, 1852, the last rail was laid and the last spike driven. Baltimore had finally been connected with the "western waters" by bonds of iron. President Swann's hopes and predictions, in the face of innumerable and apparently insurmountable obstacles, were fulfilled. On the first of January, 1853, the first train to make the complete trip from Baltimore to Wheeling rolled through the streets of that city bearing the first of the five hundred guests who came to participate in the formal celebration of the completion of the Baltimore and Ohio Railroad.

CHAPTER VI.

General Results.

During the period of construction of the Baltimore and Ohio Railroad from Baltimore to Wheeling the enterprise exercised important influences upon the growth of the wealth and the development of the resources of Maryland. It is not easy to put into figures or to estimate the exact contribution of the railroad to the economic interests of the country along its route. But in a general way these effects can be indicated by statements regarding the part played by the railroad in the development of the towns and of the mineral, agricultural and other resources of the state. The development of the natural wealth of Maryland led to an increase in trade and commerce as well as in manufactures. This in turn exerted important influence upon the growth of the towns and, more especially, of Baltimore.

Had the Baltimore and Ohio Railroad not been built at the time and by the means actually employed, some other line of railroad would undoubtedly have been constructed sooner or later, connecting Baltimore with the West. Such a railroad if built at a later date might have been constructed at a smaller apparent cost, but it is doubtful if the real cost would have been less. For in 1827 a railroad to the West was a necessity brooking no delay, and although the Baltimore and Ohio up to the completion to Wheeling paid no adequate dividends to its stockholders, yet it paid largely to the people of Maryland in a positive way by developing their resources, and in a negative way by preventing the loss of the internal trade of Maryland and of the West.

Effects upon the Industries of Maryland.

The effect of the railroad in stimulating the industries of Maryland is perhaps nowhere better shown than in the development of coal mines, iron mines and quarries.

Before the railroad reached Cumberland in November, 1842, the rich coal deposits of Western Maryland had been practically unworked. The residents of Frostburg, then a straggling hamlet, and some of the residents of Cumberland had been in the habit of digging a few hundreds of bushels out of the surface veins during the winter. This coal was loaded on flat-boats and floated down to Alexandria by means of the spring floods which deepened the Potomac. Here boats and cargo were sold and the crews generally walked back to Cumberland.

With the extension of the railroad to Cumberland real work in the mines began. Several contracts were made between the railroad and mining companies for the transportation of coal and iron to the eastern market, and the railroad company commenced to provide better facilities in the way of cars, side-tracks and switches for the rapid carriage of mineral freights. Large coal wharves were built by the railroad company at Locust Point in Baltimore to provide easy means of transhipment of coal from the cars to the holds of vessels, and the building of similar private wharves was encouraged by the offer of a lower rate for the transportation of coal. By 1850 the rich coal region around Cumberland and Frostburg had already been much developed, and the demand for this coal was increasing more rapidly than the facilities needed to bring it to market. In 1851 several companies owning lands in the coal basin about Westernport began to open mines along the line of road west of Cumberland. The traffic received a temporary check in the winter of 1852, owing to the failure of the Maryland Mining Company in October, 1851, and the heavy rates of pilotage of vessels entering and leaving the harbor of Baltimore during the opening months of 1852, but the business soon began to increase beyond its former volume, and by the fall of 1852 the company had applications for coal contracts aggregating several thousand tons per day. Much coal freight was also expected from the piercing of a vast coal basin by the George's Creek Railway,

under construction in 1852 and planned to connect with the Baltimore and Ohio at Piedmont. Before 1843 there is no mention of the transportation of any coal whatever over the Baltimore and Ohio. During that year but 4,964 tons were transported. In 1850 the shipments of coal eastward over the Baltimore and Ohio aggregated 132,534 tons; in 1851, 139,110 tons, and in 1852, in spite of many obstacles to the traffic, 132,306 tons.

The iron deposits of the state, although worked earlier, were not developed to such an extent as the coal mines. 1,574 tons of iron were shipped to the east in 1832; five years later the year's shipment amounted to 4,883 tons. The amount of iron began to decrease after this until the road reached Cumberland, when the working of the iron deposits in Alleghany county led to largely increased shipments, not only of iron, but also of iron ore. In 1851, 10,956 tons of iron and 4,386 tons of iron ore were shipped to the east.

The extension of the Baltimore and Ohio likewise greatly encouraged the opening of quarries. The shipment of granite, lime, soapstone and limestone to the east amounted in some years to over 10,000 tons, whereas the high cost of transportation had heretofore made the working of quarries, except in the immediate vicinities of the large towns, unprofitable. Fire-brick was shipped during and after 1849 at the rate of hundreds of tons per year.

Flour and tobacco were the principal agricultural products of Maryland during this period, and the extension of the railroad westward is marked by an increasing shipment of these commodities to the eastern market. Before the construction of the railroad these products had been brought by wagons to Baltimore, but at considerable expense and with many delays incident to unfavorable weather. Ellicott's Mills was a center of the flouring industry, and the construction of the railroad to this particular place was caused by the need of adequate facilities for the transportation of flour from the mills to tide-water in Baltimore.

In the year ending September 30, 1832, some 12,610 tons

of flour (146,936 barrels) were carried by the railroad from Ellicott's Mills and Frederick to Baltimore. In 1842 twice as many tons (25,233) were shipped eastwardly through the state via the Baltimore and Ohio, and in 1852 no less than 66,377 tons were so shipped. The encouragement given to agriculture is also shown by the fact that but 353 tons of grain were shipped eastward in 1832, while in 1852 nearly 5000 tons were so shipped.

The shipments of tobacco increased from 174 tons in 1832 to 1,510 tons in 1843, and to 2,322 tons in 1848, but diminished in size in the next few years. Shipments of meal increased from 512 tons in 1832 to 3,174 tons in 1852.

Maryland was not noteworthy as a cattle-raising state, and the live stock needed in Baltimore for local consumption was driven to town from the nearby regions along the highways. But with the westward extension of the railroad a slowly increasing demand arose for cattle from the interior. There is no record at all of live-stock shipped eastward in 1832; in 1834 only 23 tons were so shipped. In 1843, a year after the railroad had been completed to Cumberland, 1,219 tons of live-stock were transported to the east, and in 1849 the maximum of 18,991 tons was reached.

After the railroad reached Cumberland lard and butter acquired some prominence as articles of eastern shipment, amounting in some years to nearly 1,800 tons.

Whiskey was an important article of shipment, the amount shipped east increasing from 66 tons in 1832 to 1,111 tons in 1848. Bark for tanning purposes, leather and firewood were other commodities which were given a new value in the places of their production through the facility and cheapness of transportation afforded by the railroad. General farm products, such as potatoes, cabbage, vegetables, fruits, etc., also found a wider and better market with the operation of the railroad. After the railroad reached Cumberland the shipments of these products increased from hundreds to thousands of tons.

Growth of Towns.

The opening of the road marked the beginning of a new era in the history of Cumberland. The city was made the point of exchange for passengers and merchandise between East and West. Hotels and warehouses were erected. The facilities afforded for rapid transportation over the mountains greatly increased the travel between Cumberland and the West. This is evidenced by the larger use of the National Road after the completion of the railroad to Cumberland. From March 1 to March 20, 1849, no less than 2,586 passengers were carried over the National Road. In 1830 the population of Cumberland was 1,162, in 1840 it was 2,384, and in 1850 in was 6,105. When the Baltimore and Ohio was completed to Wheeling in 1853 the effect was soon felt in Cumberland. Most of the stage lines were taken off and the business of transferring merchandise was greatly diminished. But Cumberland continued to grow in wealth and population, and in this growth the railroad played an important part.[1]

The effect of the extension of the railroad upon the development of other Maryland towns was almost immediately beneficial, although not always capable of accurate measurement. When Frederick was connected with Baltimore in December, 1831, a ready market for the products of the surrounding region was established and land values were enhanced. The effect upon reaching Point of Rocks has been described.[2] The completion to Harper's Ferry secured connection with the Potomac and Winchester Railroad, penetrating the most fertile parts of Virginia. Harper's Ferry marking both a physical and commercial break in transportation, grew in population, wealth and importance after this time.

Before the railroad reached Cumberland, Frostburg was but a straggling village of a few hundred souls.[3] After the

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[1] Cf. W. H. Lowdermilk, "History of Cumberland," pp. 349-376.

[2] See above, pp. 26–27.

[3] J. T. Scharf, "History of Western Maryland," Vol. II.

opening of the mines, due to the railroad, a number of mining companies set actively to work, employing hundreds of men and establishing the nucleus of a flourishing and prosperous town.

The railroad was a great stimulus to the growth of the population, trade, manufactures and wealth of the city of Baltimore during the period from 1827 to 1853. Nearly 2,000,000 tons of commodities, including flour, tobacco, grain, live-stock, coal, iron, wood, leather and building stone, were shipped into Baltimore from the West alone via this railroad during this period, and either distributed by Baltimore shipping or utilized in new local manufactures. By the time the railroad was completed to Wheeling the industries of Baltimore included iron and copper works, woolen and cotton manufactures, flouring mills, manufacturers of white-lead, glass, shot, printer's ink, types, pottery, agricultural implements, powder, carpetings, house furniture, hats, cloth, etc., as well as distilleries and sugar refineries.[1] Not only had the railroad encouraged the establishment of these industries by transporting to Baltimore at low cost the raw materials required, but it also distributed in part the manufactured products throughout Maryland. Thousands of tons of these commodities were transported westward by the railroad every year, as well as large quantities of fish and oysters from the Chesapeake Bay, which were unloaded at the Baltimore wharves. During 1852 over 75,000 tons of merchandise were transported westwardly. The commodities shipped included salt, coffee, sugar, molasses, fish, oysters, lumber, plaster, dry-goods, manufactured iron, furniture, vehicles and machinery, drugs and paints, oils, groceries, guano and manures, bricks, etc. About 8,500 tons went to Frederick, 3,350 tons to Harper's Ferry, 9,500 to Winchester, 1,350 to Martinsburg, 24,500 to Cumberland, and nearly 30,000 tons to other points along the road.[2]

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[1] De Bow, "Industrial Resources of the South and West," Vol. I, p. 103.

[2] Apropos of the dependence of Baltimore upon the West, J. H. B. Latrobe remarked at a banquet given in honor of the opening

Finances of the Railroad.

During the period from 1827 to 1853 the finances of the Baltimore and Ohio present none of those complexities which appeared in the later history of the railroad. The organization of the company and the management of its business were directed to the single object of making the road an efficient channel of communication between the East and the West. The company had no speculative purposes in view, but simply attempted to make the railroad a paying investment to the *bona fide* stockholders. This policy was consistently carried out. The company's stocks represented actual money paid in for the purpose of constructing and equipping the railroad. They were not watered for the profit of the originators of the road. Even when "scrip" was issued, from 1848 to 1853, it represented net earnings applied to construction and repairs, and was not issued simply to reduce nominal dividends.

The bonds issued by the railroad company during this period were for money urgently needed. Although some of these bonds were sold as low as 80 with par at 100, yet the sales seem to have been justified by the necessity of finishing the road. This alone could make the railroad pay any returns, or indeed prevent the practical loss of a large part of the sums already expended.

The dividends during the period 1827-1853 were as follows:

January, 1831	\$0.37½
January, 1832	.60
July, 1832	.75
February, 1833	.75
October, 1835	1.12½

of the railroad to Wheeling in January, 1853, "The West built up Baltimore—first with the pack-saddle, then with the country road, then with the turnpike, and is now about to employ the greatest agent of modern times to realize the destiny appointed by Providence."

October, 1840		$2.00
October, 1841		2.00
October, 1843		2.00
October, 1844		2.50
October, 1846	($1 cash, $2 bonds)	3.00
November, 1847	($3 in bonds at 6%)	3.00
November, 1848	(stock)	3.50
November, 1849	(stock)	5.00
November, 1850	(stock)	7.00
November, 1851	(stock)	7.00
November, 1852	(stock)	7.00
May, 1853	(stock)	3.00

From the above enumeration it will be seen that the railroad at no time during this period was really a paying investment to the stockholders. The railroad paid only in the sense that it preserved and increased the trade of Baltimore with the West. The road was practically built three times east of Harper's Ferry during this period, and the great cost of construction, equipment and repairs prevented any large net earnings.

The issue of stock-orders by the company in 1839 and 1840, as detailed above,[1] was a financial measure which served the railroad well by enabling it to make use of Baltimore's subscription at a time when funds were needed and the possibility of floating the city stock doubtful. That the stock-orders circulated for a time at par and as currency, however, does not prove at all that such a form of money was desirable. The eventual depreciation of the certificates worked much hardship to laborers obliged to receive them in payment for work. Public opinion was roused to such an extent that in March, 1846, the legislature of Maryland prohibited the railroad company from issuing "anything in the nature of a bank note or other paper to be used for circulation as a currency."[2]

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[1] See pages 47–48. [2] Acts of Maryland Assembly, 1845, ch. 313.

While the general financial policy of the company was to complete the road as originally projected as soon as possible, in order to secure for the stockholders adequate returns on their investments, yet the particular manner in which the policy was carried out differed somewhat under the three presidents of the railroad who guided its affairs during this period.

Under President Philip E. Thomas (1827-1836) the magnitude of the undertaking was not clearly seen, and consequently adequate provisions were not made for securing the capital necessary to carry the work to completion. A policy, perhaps too cautious, was pursued with regard to expenditures, and profits were divided which were too small to be advantageously distributed and which would have been more effective if used in the improvement and extension of the road.

During the administration of President Louis McLane (1836-1848) the results of this policy became evident. A cheaply constructed and imperfectly planned railroad proved not only entirely inadequate for the purposes for which it was needed, but its defects were the cause of the expenditure of large sums of money for repairs and reconstruction, which ought to have been available for the extension of the road to Cumberland. To add to the difficulties of the company came the panic of 1837. The years 1838 and 1839 were the darkest in the history of the Baltimore and Ohio during the whole period before 1853, and work had to be suspended. With the help of city and state loans the company resumed construction and net receipts began to increase. From 1836 to 1840 the company used its earnings for new construction, and borrowed only where absolutely necessary to keep the road in running order. The device of paying some dividend in order to raise the credit of the company was employed from 1840 to 1847.

The policy of President Thomas Swann (1848-1853) was the completion of the road to the Ohio at any cost as a condition precedent to its successful operation. Earnings were

used as capital and dividends declared in stock; bonds were issued to be sold at a high price if possible; but, in any event, to be sold. Everything that would perfect the road with regard to the route and to equipment was tried. To obtain the carrying trade of Virginia, the Winchester and Potomac Railroad was bought. Acts of the Virginia legislature were accepted not altogether to the liking of the company in order to complete the railroad to Wheeling. It was confidently expected that adequate returns on capital would be secured after that point had been reached. The financial policy of President Swann may be summed up in the phrase, "Finish the railroad as rapidly and as thoroughly as possible; it will pay, no matter what it may seem to cost."

The Maryland legislature acted as a real arbitrator between the Baltimore and Ohio Railroad and the Chesapeake and Ohio Canal, not only in regard to right of way, but also in the attempt to arrange for a division of traffic on the two lines of transportation. An attempt of the Maryland legislature to secure the co-operation of the two companies in the transportation of coal from Cumberland is an instance in point.

The fixing of rates by Maryland and Virginia in the charters and in subsequent legislation has been previously noted. The railroad was regarded during the earlier part of this period as essentially a special kind of highway or toll road. The rates were generally fixed as maximum rates, and at first were based entirely on weight.[1]

The state of Maryland and the city of Baltimore occupied a unique position during most of this period by the exercise of direct control over the affairs of the railroad company. As stockholders they were entitled to have directors to represent their interests; but these directors were not elected

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[1] Some of the laws fixing rates are: Maryland Acts, 1826, ch. 123, sec. 18; 1830, ch. 117; 1835, ch. 395, sec. 9; 1836, ch. 261; 1840, ch. 86; 1840, ch. 370. Virginia Acts: Charter, 1827; 1837, ch. 118, sec. 24; 1839, ch. 98, sec. 4, etc.

by the general body of stockholders, but were appointed by the governor in the case of the state, and by the joint ballot of both branches of the City Council in the case of the city. Baltimore was given two directors in the company for its first subscription of 5,000 shares in 1827, and one director for each 5,000 shares of its subsequent subscription of $3,000,000 in 1836. The city was to have in no case more than twelve directors in all. Maryland had two directors for the subscription of 5,000 shares in 1827 and was authorized to appoint one additional director for each 5,000 shares subscribed in 1835, on account of the $3,000,000 subscription. When the state sold its interest in the Baltimore and Ohio (authorized by act of Assembly of 1842, ch. 301, passed March 10, 1843) the right of appointing directorships of course stopped.

The beginnings of discrimination in rates between competitive and non-competitive points are to be noted in the early years of the company. Petitions were received from time to time after 1840 from merchants engaged in the flour trade in Baltimore, stating that in consequence of the low rates charged on the Chesapeake and Ohio Canal the shipments of flour were being rapidly diverted from the Baltimore market to the District of Columbia. The flour trade had always been considered of great importance to the prosperity of Baltimore, and as long as communication with the interior had been kept up by turnpikes almost the entire product of Maryland and of a considerable portion of Pennsylvania and Virginia had been brought to the Baltimore market and had constituted a most important element in the growth and prosperity of that city. But owing to the competition in transportation due to the above-mentioned canal and the Cumberland Valley Railroad—extending from Chambersburg to Philadelphia—the flour inspections at Baltimore for several years past, instead of having increased with the growth and settlement of the country, had scarcely equaled those of an earlier period. Reduction in rates of transportation was therefore asked for.

The board of directors of the railroad recognizing that not only the trade in flour would be further diverted from the Baltimore market, but also a considerable portion of business more or less inseparably connected with the flour trade, entailing not only a serious loss to the city, but also a definite and absolute loss of traffic to the railroad, resolved in 1845 to reduce charges *only along that portion of the road which was adjacent to the Chesapeake and Ohio Canal* to a minimum which would at least pay the expenses of transportation. This is perhaps one of the very earliest instances on record of discriminations in rates due to the rivalry of competitive points. Nothing was done to prohibit this at the time.[1]

Improvements in Technique.

The Baltimore and Ohio Railroad, as one of the pioneer roads in America, encountered and solved many difficult problems in the mechanics of railroading. Car wheels, for example, were first constructed with the flange on the inside edge. This caused many a derailment and many a broken wheel, and led to the invention of the outside flange car wheel. Still the wheel was unsatisfactory, especially in turning curves, and the invention of the conical flange was the result. Car wheels at this time were constructed of cast iron. To the Baltimore and Ohio must also be attributed the anti-friction box on the axles of the car wheels, and the use of the eight-wheeled car, both inventions of Ross Winans. During the period 1830 to 1853 radical and im-

[1] Virginia passed a law, March 6, 1847 (Acts of Virginia, 1846, ch. 99) against discrimination in rates on the Baltimore and Ohio Railroad with regard to long and short hauls, forbidding the company to "charge for transportation or travel to or from Baltimore from or to any point distant more than five miles in a direct line from the Ohio river more in the aggregate than for transportation or travel from Wheeling to Baltimore, or from Baltimore to Wheeling respectively, nor more in the aggregate from any depot west of Harper's Ferry to Baltimore, or from Baltimore to such depot, than from any other depot more distant from Baltimore to Baltimore, or from Baltimore to such last-mentioned depot."

portant changes were made in the construction of steam locomotives, and the introduction of the "Grasshopper" and "Camel" types are due to the Baltimore and Ohio and its engineers. When completed to Wheeling the road-bed embodied the results of the highest engineering skill in construction over the Alleghany mountains, and included the longest railroad bridges and trestles and the longest tunnels of any railroad in America. Many valuable improvements in track-construction, road-bed, stringers, ballast, switches, turn-outs, and especially in the method of laying of rails for turning sharp curves, are attributable to the Baltimore and Ohio Railroad.

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[1] See "Address" by President Mendes Cohen, delivered before the American Society of Civil Engineers, June, 1892, "Proceedings," pp. 535-558.

VII.—APPENDIX

1.—Chronology of the Baltimore and Ohio Railroad.

First general meeting of citizens contemplating a railroad, February 12, 1827.
Act of incorporation granted by Maryland, February 28, 1827.
Act of incorporation confirmed by Virginia, March 8, 1827.
Requisite amount of stock for organization subscribed by April 1, 1827.
Company organized; directors elected, April 23, 1827.
Preliminary surveys begun, July 2, 1827.
Actual surveys begun, November 20, 1827.
Charter confirmed by the state of Pennsylvania, February 22, 1828.
Maryland became a stockholder, March 6, 1828.
Corner-stone laid, July 4, 1828.
Railroad opened to Ellicott's Mills, 14 miles (horse-power), May 22, 1830.
Trial of the first steam locomotive on the Baltimore and Ohio Railroad, August 25, 1830.
Railroad opened to—
  Ellicott's Mills, 14 miles (steam-power), August 30, 1830.
  Frederick, 61 miles, December 1, 1831.
  Point of Rocks, 69 miles, April 1, 1832.
  Harper's Ferry, 81 miles, December 1, 1834.
  Hancock, 123 miles, June 1, 1842.
  Cumberland, 178 miles, November 5, 1842.
  Piedmont, 206 miles, July 21, 1851.
  Fairmont, 302 miles, June 22, 1852.
Last spike driven; finished, Baltimore to Wheeling, 379 miles, December 24, 1852.
First train reached Wheeling from Baltimore, January 1, 1853.
Railroad opened, Baltimore to Wheeling, 379 miles, January 10, 1853.

2.—Cost of Construction.

Baltimore to Harper's Ferry	$ 4,000,000.00
Harper's Ferry to Cumberland	3,623,606.28
Cumberland to Wheeling	6,631,721.00
First cost of 379 miles of railroad	$14,255,327.28
Cost of reconstruction, etc., east of Cumberland	962,589.02
Extension to Locust Point	180,205.63
Camden Street Station (ground)	230,841.31
Grand total	$15,628,963.24

Estimated cost of construction (Feb., 1827), $5,000,000.

Real cost of construction (Jan., 1853), $15,628,963.24.

Estimated length of road (Balto. to the Ohio river) (Feb., 1827), 290 miles.

Real length of road (Balto. to the Ohio river) (Jan., 1853), 379 miles.

Estimated revenues per annum (Feb., 1827), $750,000.00.

Real revenues per annum (Oct. 1, 1853), $2,033,419.80.

3.—Statement of Trade, Revenue, Profits and Dividends of the B. & O. R. R. from the Opening in 1830 to Completion to Wheeling, Oct. 1852.

Years ending October 1.	RECEIPTS. Passengers. Carried in Washington Branch trains.	Passengers. Carried in Main Stem trains.	Passengers. Total number of passengers on both roads.	Passengers. Receipts from passengers and mails.	Tonnage. East-ward freight. Tons.	Tonnage. West-ward freight Tons.	Tonnage. Total freight. Tons.	Total Receipts. Passengers and tonnage.	Receipts from tonnage alone.	EXPENSES. Total for passengers and tonnage.	Net Receipts.	DIVIDENDS. Per cent.	DIVIDENDS. Amount.	Surplus reinvested.
1830	....	....	....	....	....	....	....	$ 14,711	....	$ 11,985	$ 2,726	.37½%		
1831	....	81,905	81,905	$ 27,250	3,876	2,055	5,931	31,405	$ 4,155	10,995	20,410	.60%	$69,975	$ 15,326
1832	....	89,022	89,022	67,910	29,445	11,640	41,085	136,937	69,027	75,673	61,264	.75%		
1833	....	88,633	88,633	83,233	37,166	25,589	62,755	195,680	112,447	138,495	57,195	.75%	30,061	27,134
1834	....	94,844	94,844	89,182	36,192	19,929	56,121	205,437	116,255	138,402	67,035	....	....	67,035
1835	12,147	85,611	97,758	93,540	46,979	25,655	72,634	263,368	169,828	161,216	102,152	1.12½%	45,002	57,150
1836	75,416	81,686	157,102	128,126	40,805	25,898	66,703	281,312	153,186	212,937	68,375	....	....	68,375
1837	73,474	67,225	140.699	145,625	40,697	33,901	74,598	301,301	155,676	289,125	12,176	....	....	12,116
1838	83,749	66,676	150,516	166,694	47,447	30,079	77,526	365,224	198,530	271,581	93,643	....	....	93,643
1839	86,964	65,537	152,501	173,860	54,573	45,878	100,451	407,347	233,487	312,700	94,647	....	....	94,647
1840	87,202	65,216	152,418	177,035	62,736	25,638	88,374	432,885	255,848	275,189	157,694	2%	80,000	77,694
1841	107,136	64,493	171,629	179,616	42,056	23,443	65,499	391,070	211,454	239,622	151,448	2%	130,000	21,448
1842	94,566	60,002	154,568	181,177	37,600	30,243	67,843	426,492	245,315	216,715	209,777	....	....	209,777
1843	78,425	71,108	149,533	274,617	55,523	27,191	82,714	575,235	300,618	295,833	279,402	2%	140,000	139,402
1844	99,106	74,661	173,821	336,876	69,886	33,224	103,110	658,619	321,743	311,633	346,986	2½%	175,000	171,986
1845	103,588	98,870	202,458	369,882	90,865	50,541	141,406	738,603	368,721	363,841	374,762	....	....	374,762
1846	157,157	123,107	280,264	413,341	110.356	83,559	193,915	881,687	468,346	454,840	426,747	3*a*	210,000	216,847
1847	151,753	136,921	288,674	447,020	183,824	79,511	263,335	1,101,937	654,917	590,829	511,108	3*b*	210,000	301,108
1848	170,196	160,974	331,170	488,376	205,174	66,078	271,252	1,213,664	725,288	662,106	551,558	3½*c*	....	551,558
1849	171,573	165,309	336,882	394,497	287,894	63,761	351,655	1,241,205	846,708	644,634	596,571	5*c*	....	596,571
1850	214,360	180,905	395,265	438,375	402,905	74,650	477,555	1,343,805	905,430	609,589	734,216	7*c*	....	734,216
1851	164,862	164,054	328,916	406,796	459,000	75,921	535,020	1,349,223	942,427	695,919	653,303	7*c*	....	653,303
1852	229,042	185,377½	414,419½	314,914	493,621	83,364	579,285	1,325,563	1,010,649	710,179	615.384	7*c*	....	615,384
	2,160,770	2,272,217½	4,432,997½	$3,397,942	2,838,719	940,948	3,780,467	$13,882,710	$8,470,055	$7,694,028	$6,188,679		$1,090,038	$5,098,641

a $1 cash and $2 bonds. *b* $3 in bonds. *c* Stock.

OMMODITIES TRANSPORTED EASTWARDLY FROM DEPOTS ON THE MAIN STEM OF THE B. & O. TO BALTIMORE.

21 YEARS—OCTOBER 1, 1831, TO SEPTEMBER 30, 1852.

ES TED.	1832. Tons.	1833. Tons.	1834. Tons.	1835. Tons.	1836. Tons.	1837. Tons.	1838. Tons.	1839. Tons.	1840. Tons.	1841. Tons.	1842. Tons.	1843. Tons.	1844. Tons.	1845. Tons.	1846. Tons.	1847. Tons.	1848. Tons.	1849. Tons.	1850. Tons.	1851. Tons.	1852. Tons.
arrels..	146,936	169,957	182,211½	268,162	174,643	113,870	142,512¼	264,033½	392,449½	255,618	233,536	266,146½	241,550	235,602½	412,776½	579,870½	416,110½	469,261	508,127	471,872	617,604½
ons.....	12,610	16,390	17,630	25,862	16,845	11,569	15,391	28,516	42,383	27,642	25,233	28,744	26,066	25,446	44,586*	62,599	44.717	50,007	54,636	50,969	66,377
gsheads	......	631	801	2,309	2,377	2,328	1,468	861	2,115	1,367	1,884	3,456	3,598	6,670½	5,539	4,130	5,582	4,496	2,217	3,423	2,537
ns.......	174	351	312	898	913	908	624	368	900	572	769	1,510	1,517	2,885	2,344	1,700	2,322	1,761	876	1,263	950
....	353	280	523	1,500	2,348	1,848	11,106	1,263	2,004	166	255	2,508	1,878	1,923	1,172	6,693	1,475	3,347	818	4,684	4,991
....	512	1,056	741	2,463	2,349	2,660	1,920	1,429	2,373	1,012	885	1,001	1,102	1,370	1,394	1.967	1.593	1,532	1,408	2,491	3,174
. ...	29	289	161	53	354	737	647	451	414	502	201	2,870	2,403	2,352	3,192	3,824	4,705	3,808	2,121	2,258	2,411
....	......	51	23	46	71	16	834	427	432	671	326	1,219	4,669	5,172	4,382	8,204	12.713	18,991	14,863	14,553	14,557
....	66	69	130	208	244	295	413	468	492	395	26	566	733	730	547	700	1,111	1,078	807	755	778
e, Soap																					
one.....	8,332	13,343	10,592	8,026	9,269	10,031	7,812	4,121	5,218	4,225	3,399	2,597	4,501	5,644	5,205	6,030	6,081	4,358	5,409	6,796	8,378
....	1,574	1,143	1,548	2,523	3,796	4,833	3,269	5,006	3,030	1,024	1,389	2,485	3,552	4,810	7,543	8,855	7,326	6,722	7,556	10,956	6,511
....	......	.....	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	3,123	2,470	4,386	2,726
ter.....	......	.....	......	......	......	......	......	......	......	.....	......	476	780	1,206	1,661	1,489	1,752	1,767	987	585	435
....	.....	.....	......	......	......	......	......	......	......	......	......	4,964	5,687	16,021	18,394	50,259	66,289	71,699	132,534	139,110	132,306
....	.....	.....	......	......	......	......	......	......	......	.....	......	......	......	......	......	......	......	91	88	662	437
....	.....	.....	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	696	956	1,257	1,103
....	.....	.....	......	......	......	......	......	......	......	......	.....	......	......	......	......	......	......	1,169	559	1,188	1,781
....	.....	.....	......	......	......	......	......	......	......	......	......	......	.....	......	......	......	.....	1,508	962	1,071	931
s........	5,766	4,194	4,562	5,400	4,616	7,799	3,647	2,803	3,257	4,273	4,133	3,964	4,219	3,502	4,250	6,136	7,861	3,353	3,288	3,738	4,397
s........	29,446	37,166	36,192	46,979	40,805	40,696	45,663	44,852	60,503	40,482	36,616	52,634	57,107	71,061	94,670	158,466	157,405	175,610	230,338	245,724	252,243

* See p. 75.

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IX

SOUTH AMERICAN TRADE OF BALTIMORE

JOHNS HOPKINS UNIVERSITY STUDIES

IN

HISTORICAL AND POLITICAL SCIENCE

HERBERT B. ADAMS, Editor

History is past Politics and Politics are present History.—*Freeman*

FIFTEENTH SERIES

IX

SOUTH AMERICAN TRADE OF BALTIMORE

BY FRANK R. RUTTER, PH. D.

Sometime Fellow in Economics, Johns Hopkins University

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CONTENTS.

SOUTH AMERICAN TRADE OF BALTIMORE.

INTRODUCTION.

The influence of commerce on the history of Baltimore has been very marked. The situation of the town was determined by the shipping interests. Its earliest importance, dating from the Revolutionary War,[1] was due to its trade. Among the early commercial interests of Baltimore, none was more extensive than its trade with the West Indies and South America. Concerning its South American trade, especially, there is very little definite information readily accessible, although some reference to the topic is usual in accounts of Baltimore history and commerce.[2] As a study in local history, therefore, the South American trade of Baltimore offered an inviting field for investigation.

As a concrete study of the commercial changes of the present century, the inquiry has proved even more interesting. Within the last one hundred years is contained practically the whole commercial history both of Baltimore and of Spanish South America and Brazil. During this period, methods of transportation have been completely changed in the direction of greater initial cost and increased economy in operating expenses—in the direction of greater concentration of trade and greater regularity in transportation. Trade has increased greatly in amount, but the profit on a single transaction is much less; trade no longer consists in

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[1]Baltimore's custom house was established in 1780. Griffith: *Annals of Baltimore*, 84.

[2]Mayer: *Baltimore*, 80-81; Scharf: *Resources of Maryland*, 182, 207-208; *History of Baltimore City and County*, 382-383; Fisher: ***Gazetteer of Maryland***, 52.

a series of lucrative "ventures." It has been my aim to make a concrete study of the effects of these general commercial changes on the localization of industry, as well as a study in local economic history.

The most important general sources on which this study is based are: (1) The custom-house records at Baltimore, to which freest access was given me by Dr. Frank T. Shaw, Collector of the Port, and in the use of which I received the assistance of Andrew Banks, Esq., of the record department. From these records I made detailed study of the exports and imports at Baltimore for the calendar years 1790, 1803, 1810, 1811, 1812, 1813, 1815, 1816, 1823, 1827, 1834,[1] 1838, 1848, and 1858, and the fiscal years 1848, 1859,[2] 1863,[2] 1867,[2] 1888,[3] 1892, and 1893; and of the entrances from 1827 to 1858, and from 1865 to 1870.[4] (2) The annual government reports on *Commerce and Navigation* and *Commercial Relations.* (3) The file of the Baltimore *Price Current,* from 1839 to 1874, and the *Journal of Commerce,* its successor, from which I gained very full and valuable information. I secured access to the complete file through the courtesy of Francis M. Goodwin, Esq. Other sources that I have used are indicated in the footnotes. To the gentlemen named above, and to Theodore A. Martin, Esq., I owe public acknowledgment for assistance in gathering my materials; and to Associate Professor Sidney Sherwood and Dr. Henry L. Moore, of the Johns Hopkins University, for valuable criticisms and suggestions as to the manner of presenting the results of my study.

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[1]Imports for nine months ending September 30.

[2]Exports only. [3]Imports only.

[4]The desire to give special attention to the beginning of the trade and the effect of the War of 1812 led to the selection of the earlier years. The choice of later years was influenced considerably by the incompleteness of the records. The aim was to select years which would show variations in the internal character of the trade.

CHAPTER I.

FROM THE BEGINNING OF THE TRADE TO 1825.

The origin of Baltimore's South American trade is to be found in its trade with the West Indies. From the establishment of Baltimore as a port of entry, and even previously through the port of Annapolis, Baltimore carried on a trade with the West Indies, which was comparatively extensive and extremely lucrative. The West India trade in its turn was but an extension of the coasting trade. The almost continuous European wars from 1792 to 1815 very largely interrupted direct trade between the mother country and the colonies. The danger was too great to permit merchants to risk the valuable vessels and cargoes necessary for the long voyage from Europe to the West Indies. The United States was the only neutral country; a carrying trade consequently sprang up through its ports between Europe and the islands.

Baltimore gained a large share of that trade. It possessed several decisive advantages: (1) its proximity to the wheat region of western Virginia; (2) its extensive milling industry; (3) its proximity to the foreign markets; (4) the famous "Baltimore clipper;" and (5) its spirit of enterprise.

The combination of the first two advantages made Baltimore an excellent market for flour, the staple export to the West Indies, and later to South America. With overland transportation, the advantage of greater proximity to the lands then known as the west was at the maximum. Baltimore was also advantageously situated for the milling industry. Six streams near the city, each with a considerable fall, gave a remarkable supply of motive power. Baltimore is said to have possessed the first flour mill in the United

States—the Patapsco, completed in 1774, situated at Ellicott City—and the first mill operated by steam—the Phoenix Mill, in operation in 1795.[1] In 1823 it was said:[2] "Baltimore is celebrated for the fineness of its flour, the superiority of which arises from the perfection to which they have arrived in the machinery by which it is manufactured." In 1825 there were sixty mills within a radius of twenty miles from Baltimore.[3]

Baltimore was situated forty-eight hours nearer the West Indies and South America than New York. This advantage was of considerable importance while the trade was carried on in small coasting vessels.

The transportation facilities of Baltimore were especially suited to the character of the trade and the conditions of the time. The "Baltimore clipper" was a vessel peculiar to the Chesapeake. It was schooner-rigged, and possessed the advantage of sailing closer to the wind than other craft—a property that enabled it to escape privateers. It would be difficult to emphasize too strongly this advantage during the period of the European wars.

Baltimore was a new town. It had been laid out less than fifty years before the Revolution. It had grown by immigration. The result was a spirit of enterprise throughout the community, and a knowledge concerning trade conditions in all the principal countries, that only new communities possess.[4] The element of risk in the West India trade, with its promise of large profit, offered an opportunity especially suited to the inhabitants of Baltimore. Their spirit led them to select the adventurous undertaking, and the Baltimore clipper enabled them to carry it through to success.

These advantages combined to make Baltimore "the regular *entrepot* between Europe and the West Indies."[5] The

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[1] *Journal of Commerce*, March 18, 1882, September 4, 1886.

[2] Duncan: *Travels in America*, i. 235.

[3] Jared Sparks, in *North American Review*, xx. 123.

[4] *Ibid.*, 115. [5] Brantz Mayer: *Baltimore*, 63.

extension of the trade to South America was perfectly natural. The earliest South American trade of Baltimore was with the Guianas, and differed in no particular from the West India trade, either as to supply or demand. Flour was alike the chief article of demand, and sugar, molasses, and coffee, the chief articles of supply.

The Spanish colonial policy was one of restriction in the extreme. The aim was to monopolize the trade of the colonies.[1] An extensive contraband trade resulted, in which Baltimore was very successful. To the Spanish policy seems largely due the early trade with the Guianas. Either the products from Venezuela and Brazil were exported through British and French Guiana, or else restrictions on the trade of the former countries prevented the production of the commodities which they exported later—at all events, the imports from the Guianas consisted of articles later received from Venezuela and Brazil, and practically ceased upon the beginning of trade with the latter countries. By 1810, Baltimore had secured trade with all the countries on the east coast of South America. Revolution had opened to commerce the northern colonies—Colombia and Venezuela—and the Plata colonies—Uruguay and Argentina. The beginning of trade with Brazil was due to the establishment of the Portuguese court at Rio Janeiro upon Napoleon's invasion of Portugal, and the consequent demand for European goods. In 1810, the exports from Baltimore to Brazil amounted to more than three times the value of the imports, and seventy per cent. of the exports consisted in foreign goods. Baltimore's trade with Brazil was thus due at first to the extensive carrying trade which the European wars had given to the United States as the neutral nation.

[1] It is, however, an error to state that none but Spanish vessels were allowed to trade with the colonies. *American State Papers*, xi. 329, 333. At least three Baltimore vessels received regular clearance papers from the Spanish officials at La Guayra during 1800 and 1803. Clearance papers do not, however, usually accompany the manifests.

The demand in Brazil for foreign goods occasioned the development of its resources; the exports to Brazil preceded and occasioned the imports from Brazil. After the removal of the internal restrictions on the commerce of South American states, Spanish privateers offered no insurmountable barrier to Baltimore traders.[1]

To the Revolutionary War is to be largely ascribed the beginning of Baltimore's trade. Baltimore was not blockaded, and Annapolis, its rival on the Chesapeake, lost prestige as the centre of royalist influence. In 1812, however, Baltimore was the port most carefully blockaded, and the city's trade was temporarily cut off. From 1813 to the close of the war, the blockade was complete. But the prosperity of the city is said to have been checked very little—trade was carried on at other ports, but still on Baltimore account, and returned to Baltimore upon the conclusion of the war.[2] Another plan was largely adopted by Baltimore vessel-owners. A number of the vessels heretofore engaged in the South American trade took out letters-of-marque or were fitted out as privateers. For the exploitation of new markets in South America was substituted direct spoliation of the enemy's ships—a change still more hazardous and one offering still greater profit. Two prizes of the schooner Comet in 1812—of vessels from Demerara and Surinam[3]—brought into Baltimore the largest imports it received from those countries until the marked increase in the sugar trade between 1855 and 1860. The war ended the trade with the Guianas. Yet the general effect of the war on the trade of Baltimore with South America was merely temporary; upon the close of the war, the trade resumed its former proportions.

One effect of the war, however, was lasting. To a large

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[1]Brantz Mayer: *Baltimore*, 80.

[2]*North American Review*, xx. 112.

[3]Now British and Dutch Guiana. Then both under British control.

degree, it marked the decline of the re-export trade of Baltimore. It also promoted the introduction of domestic manufactures. Baltimore was cut off from direct foreign trade more than other cities; and its abundant water supply furnished the necessary power. Consequently, Baltimore was among the first cities to establish cotton factories.[1] The competition with European goods after the close of the war was very injurious to the factories in that city. The system of minimum valuation, under the tariff of 1816, afforded increased protection to cottons, as the price of lower grades was reduced.[2] Thus toward the close of this period, the factories near Baltimore again became prosperous, and domestic cottons came to take the place of foreign as articles of export. In 1827, the cottons exported were for the first time mainly domestic, and from that date the foreign cottons exported were inconsiderable. The most extensive demand for cottons was on the west coast of South America, where at first, with money very abundant, it was not difficult to obtain the high prices a protected industry required.

Peru was the last country to sever its connection with Spain. It was the principal seat of colonial government, and was thought to be the richest of the Spanish colonies. It contained rich silver mines, and at Lima the tributes from all the Spanish American colonies were collected. The trade of Peru was considered exceptionally profitable, and was reserved for a monopoly of Cadiz merchants. The exportation of gold and silver, except to Spain, was absolutely forbidden. Commodities were kept few, and money was abundant. A large premium was thus offered for the goods demanded, when the artificial restrictions were removed.

Baltimore followed the spread of revolution in Peru as

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[1]Three of its factories were established during the period of commercial restriction before the war. *North American Review*, xx. 127.

[2]See Taussig: *Tariff History of the United States*, 30-31.

well as in the other states. Its trade with that country sprang up after the war of 1812. A vessel cleared that port in 1816 with a cargo for Lima and Canton—thus connecting Baltimore's Peruvian with its previous Chinese trade. In 1823 its exports both to Peru and Chile were considerable, and its imports, consisting mainly of specie and bullion,[1] were much larger. In that year, Baltimore received by far the largest part of the imports of the precious metals into this country from the west coast of South America.[2] Specie continued the chief import into Baltimore from Peru and Chile well into the next period. The continuous flow of silver into the United States from Peru and Chile is to be connected, not only with its superabundance there relative to commodities, but its overvaluation in this country during the "silver period" in the history of our coinage.[3]

The period from the beginning of the South American trade to 1825 was one of exploitation. The countries had been to such an extent closed to commerce that rich gains were secured by the earliest traders. The general spirit of the times was in favor of hazardous trade.[4] This statement is particularly true concerning the spirit of Baltimore traders. Their vessels were small and swift, unsuited to regular commerce, but peculiarly fitted to make irregular voyages, run blockades, and escape privateers. The advan-

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[1]In the case of Peru the proportion was 60 per cent., and in the case of Chile, 26 per cent. The exports were only 33 per cent. as great as the imports.

[2]During the nine months ending September 30, 1823, Baltimore imported $123,225 in coin from Peru and Chile; for the United States, during the year ending September 30, 1823, the imports of coin from "Spanish South America and Mexico" were only $121,970, according to the report on *Commerce and Navigation.* Unfortunately, early returns for coin and bullion are particularly untrustworthy.

[3]So Prof. Laughlin terms the period down to 1834. *History of Bimetallism in the United States*, 30, 55. See also *Hunt*, vi. 62-64.

[4]*Cf.* Gertrude Selwyn Kimball: *The East India Trade of Providence*, 3.

tages of Baltimore were at their greatest during this period, before improved transportation began to obliterate distance. Baltimore, in the exploitation of the markets of Spanish America, gained a large share of the benefits Spain had reserved for herself.

The period was one of beginnings. At its close, the trade with South America had become fixed along certain lines; during the next period, it developed along those lines. Flour formed the largest article of exportation to the east coast of South America, and was a very important export to the west coast. The re-export trade was rapidly declining toward the close of the period. During the period, imports from the different countries had varied considerably. At the beginning of the century, sugar and coffee were crops of the West Indies, Venezuela, the Guianas, and Brazil. In Brazil, sugar was the older crop; coffee was introduced as late as 1774.[1] In 1811, Baltimore's imports from Brazil were composed most largely of hides and sugar, coffee forming only eleven per cent. of the whole. Brazil, it has been said, could raise coffee more cheaply than most of its competitors by one-fourth, and this advantage made coffee the great crop of Brazil, while sugar passed largely to its less favored rivals. In 1823, coffee formed fifty-nine per cent. of the total imports from Brazil. Hides formed the second import from Brazil, and the chief article from Uruguay and Argentina. Cocoa, coffee, and indigo were the leading imports from Venezuela; silver, copper, and platinum, from Peru and Chile.

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[1] *Hunt*, xxiii. 172-174.

CHAPTER II.

FROM 1825 TO THE CLOSE OF THE CIVIL WAR.

I. Trade with the East Coast.

Exports.

Flour is the one line of exports to the east coast of South America that requires special treatment. In 1827 it formed sixty-eight per cent. of the total exports, and in 1858, fifty-nine per cent. In the trade with Brazil the importance of flour is still more marked; in 1827 it constituted seventy-one per cent. of the total exports, and in 1858, seventy-five per cent.[1] Flour has proved the determining factor in the export trade of Baltimore to the east coast of South America.

At the close of our second period, the six articles constituting the chief elements in Baltimore's commerce were flour, grain, tobacco, guano, copper, and coffee.[2] Four of these articles were intimately connected with the South American trade—flour, guano, copper, and coffee. Down to

[1]Percentage of different articles to total exports, domestic and foreign, from Baltimore:

Destination.	Flour.		Domestic Cottons.		Foreign Goods.	
	1827	1858	1827	1858	1827	1857
East Coast of South America........	68	59	4	7	8	1
Brazil................................	71	75	5	8	7	2

[2]Baltimore *Price Current*, annual statement for 1860. Condensed in *Hunt*, xiv. 487.

the Civil War, Baltimore maintained a position second only to New York as an exporting point for flour.[1] This position it held by means of its South American trade.

The flour destined for Brazil and the West Indies formed by far the largest and most uniform element in Baltimore's exports. The temporary fluctuations, which are so noticeable in the export of flour to Great Britain, are almost entirely absent in the export to Brazil and the West Indies. This difference is shown clearly in the accompanying diagram. The fluctuations in the trade with Great Britain were due principally to three causes: (1) The flour was mainly of western production. Hence the question of transportation from the interior formed a disturbing element in that trade.[2] (2) The market was much more sensitive than in the case of Brazil. The effect of a good or bad season was thus very marked. (3) The influence of European conditions, such as the Crimean War (1854-1856), was very apparent. The fact that the export to Brazil and the West Indies was not subject to such marked variations rendered it much more fit to serve as the basis of Baltimore's flour trade. The flour exported to Brazil was mainly of eastern manufacture; the demand was for consumption among the more wealthy classes, and was almost constant in amount.

The exports to South America and the West Indies were similar, both in composition and the conditions to which they were subject. Both lines of export show a constant increase throughout the period. The export to Great Britain was largest between 1846 and 1855; during that decade the average export of flour there was larger than to any

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[1] *Price Current*, annual statement for 1857.

[2] Thus the increased receipts of Ohio flour upon the completion of the Baltimore and Ohio to Wheeling in 1853, increased the proportion of flour exported to Europe. The decline in receipts and shipments of western flour during the years 1856 to 1859 was attributed to the action of railroads in favoring through traffic, and thus diminishing the advantage of Baltimore over New York from its greater proximity to the west. *Price Current*, annual statement for 1859.

other country;[1] the next five years brought about a marked decline. From 1846 to the close of the period, the West Indies received more flour on the average than Brazil, but less than South America. Yet during the whole period the trade with Brazil was becoming more firmly established, and it withstood the shock of the Civil War better than any other branch of Baltimore's export trade in flour.

The flour exported to other South American countries than Brazil was by no means so constant in amount. During the whole period, the export to the Plata, as well as to Brazil, was increasing in quantity; the flour trade with Venezuela, however, was constantly declining. The total exports from Baltimore to Venezuela remained almost constant during the twenty years before the Civil War; but the relative importance of flour among the exports fell from forty-nine per cent. in 1838 to twenty-two per cent. in 1858. The exports to Venezuela had thus come to consist much more largely in mixed cargoes. The Civil War marked the end of Baltimore's export trade with Venezuela;[2] it also

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[1]Exports of flour from Baltimore, by barrels:

Destination.	Average 1840 to '44	Average 1846 to '50	Average 1851 to '55	Average 1856 to '60	Average 1861 to '65
Brazil..........	107,438	108,021	122,725	128,087	154,085
Uraguay, Argentina } ..	7,134	12,483	17,808	25,977	10,881
Venezuela.....	12,737	10,189	8,650	3,988	726
Great Britain..	25,530	112,320	175,841	67,055	38,476
West Indies...	99,121	110,329	139,918	150,586	85,561
Other Countries	32,321	83,221	72,863	87,304	32,451
Total.....	284,281	436,563	537,805	462,997	322,180

Returns for 1845, and exports to Uruguay, Venezuela, and the West Indies for 1846, are not available.

[2]Since 1869, total domestic exports from Baltimore to Venezuela have amounted to less than $16,000—the shipments scattered over seven different fiscal years. Within the last decade, at least, the only commodity exported has been bituminous coal. Since the war, the export trade to Venezuela, of which flour constituted 24 per cent. in 1892, has become concentrated at New York, and is carried on almost entirely by means of steamers, mostly regular steamers under the American flag. In 1895, 80 per cent. of the total domestic exports was carried in American steamers and 13

marked the end of the importation of coffee from that country.

During the period before the Civil War, Brazil received the larger part of the exports from Baltimore to the east coast of South America, although not the preponderant share it has received since the war. In fact, in 1858 the exports to Brazil constituted only fifty-four per cent. of the total exports to the east coast, against eighty-one per cent. in 1827, seventy-eight per cent. in 1838, and seventy-two per cent. in 1848. The export trade with Brazil was constantly increasing in amount; its apparent decline relative to the trade with the entire coast was due to special circumstances affecting the exports to the other countries. An export trade with British Guiana had begun again about 1845, and had increased with the increased demand for sugar at Baltimore; and an export trade in bituminous coal with Aspinwall had sprung up. Later history shows, however, that extensive trade with other countries than Brazil has proved transient; hence our chief inquiry is as to the character and the composition of the export trade of Baltimore with Brazil.

It has already been shown that the chief constituent of the exports to Brazil has been flour. The favorite description of flour was that produced by city mills. Owing to the warm climate of Brazil, a high quality of flour has been necessary. That made from the best winter wheat of Maryland and Virginia has been found to possess the best keeping qualities. This fact accounts largely for Baltimore's early trade to the West Indies and South America. About 1839 and 1840 the quality of Baltimore flour deteriorated, and the strongest complaints were received from Rio Janeiro; Richmond flour, made out of similar wheat, was preferred.[1] It

per cent. in foreign steamers. Percentage of the domestic exports to Venezuela:

	1869.	1878.	1881.	1895.
From New York	69	86	95	99½
From Philadelphia	28	13	4	....

[1] *Price Current,* April 18, May 30, August 1, 1840, February 6, 1841.

was feared that the laws for the inspection of flour were not sufficiently stringent, and a new grade, higher than the superfine, was instituted in 1840, to be known as family flour. A family flour was put on the market by Baltimore millers, which by 1844 became recognized as excellent in this country, and as standard in Brazil.[1]

In the manufacture of flour for Brazil, Richmond and Baltimore have been the chief competitors. Unfortunately, for only five years of this period can the relative exportation of these two descriptions of flour be given. From 1845 to 1849 the general tendency was toward the relative increase of Baltimore flour.[2] The present period has largely concentrated the manufacture of flour for Brazil at Baltimore.[3]

We possess means of estimating much more accurately the rank of Baltimore as an exporting point for flour.[4] It is in this capacity that Baltimore has achieved its greatest success. New York received the larger part of its flour from the west; this flour has never proved acceptable in Brazil. Richmond, on the other hand, has had no active demand for

[1]The new Patapsco Extra had secured the place held by the Richmond flour four years before. *Price Current*, annual statement for 1844.

[2]Sales of Baltimore and Richmond flour in Brazil (by barrels):

	1845.	1846.	1847.	1848.	1849.
Baltimore	44,172	55,957	70,046	90,414	83,506
Richmond	86,658	78,395	65,843	62,645	90,402

Hunt, xxii. 666.

[3]See *Commercial Relations*, 1886, 1072.

[4]Flour exported to Brazil in barrels:

	1838	Average 1840 to '44	Average 1846 to '50	1848	1859	1863
From Baltimore	65,555	107,438	108,021	115,628	109,507	153,163
From United States	97,606	180.524	194,781	294,816	491,484	408,820
Percentage from Baltimore to total from United States	67	60	55	39	22	37

Years 1848, 1859, and 1863 are fiscal; others, calendar. Exports of flour from Baltimore for 1863 are not entirely complete. Exports from the United States, 1838 to 1850, taken from *Hunt*, xxiv. 621, and for other years, from reports on *Commerce and Navigation;* exports from Baltimore, 1840 to 1850, from *Price Current*, for other years, compiled from custom-house records at Baltimore.

coffee, and has thus been unfitted to secure and maintain a direct trade in flour. Baltimore was without equal as a point for the exportation of flour to South America. This can easily be shown to be true for the years between 1838 and 1850. In all of these years except 1844 and 1847, Baltimore exported more flour to Brazil than all other ports in this country. From 1848 to 1859, the relative importance of Baltimore declined somewhat. The decline was largely due to the attempt that was made to export flour direct from Richmond to Rio Janeiro; this was done largely on Baltimore account; thus the interest of Baltimore in the trade was even more extensive than the figures indicate. It may be said, in general, that about three-fourths of the flour exported to Brazil from Baltimore was the product of city mills, and that the larger part of the remainder was of Richmond manufacture,[1] amounting perhaps to one-third of the entire export of that description to South America. Baltimore possessed a very extensive interest both in the manufacture and the exportation of flour for Brazil during the entire period.

Western flour did not enter into the exports to Brazil to any considerable extent, either in the period before the war or in the present period. This fact eliminates from our direct study of the Brazilian trade all question concerning transportation from the interior. Indirectly this question enters into our problem, through its influence on the exports to Great Britain, and thus on the direction of Baltimore's exports of flour. But the importance of this question, during the period before the Civil War, is by no means considerable.

Baltimore already gave evidence of the character of its trade during the next period. It proved a better port for flour than for other exports. Through the whole period the proportion of flour to total exports to Brazil was higher in

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[1]Said to amount to about 40,000 barrels annually. *Price Current,* annual statement for 1857. DeBow: *Industrial Resources,* iii. 463, 468.

the case of Baltimore than for the United States.[1] Yet the difference was not so marked as it has since become.

Exports from Baltimore to Brazil before the war were carried almost entirely in vessels belonging to the port, regularly engaged in the trade. In 1858 ninety-four per cent. of the exports from Baltimore to Brazil was carried in vessels belonging to the port, four per cent. in other American vessels, and only two per cent. in foreign vessels.[2]

The effect of the Civil War on Baltimore's flour trade with Brazil was marked. The war resulted in the interruption of western communication, owing both to the use of the Baltimore and Ohio for the transportation of troops and its repeated obstruction by the Confederate forces. This affected the export to Great Britain rather than that to Brazil. There seems also to have been a decreased local demand for city flour. The army near Baltimore was supplied from that market, but probably with western flour. Baltimore millers found it necessary to manufacture a special grade of flour for South American markets, and they entered into active competition to satisfy the demands of Brazil.[3]

The war also closed the port of Richmond. Baltimore was so placed as to need an extension of its exports to Brazil, in order to compensate for the decline in its exports to other countries, and probably also a diminished local consumption of city flour; and the extension of its trade was facilitated by the blockade of the port of its chief competitor. The principal results of the war were thus: (1) An increase in the export of flour from Baltimore to Brazil of twenty per

[1]Proportion of flour to total domestic exports to Brazil, by fiscal years:

	1848.	1859.	1863.
From Baltimore........	73 per cent.	69 per cent.	87 per cent.
From United States....	63 "	59 "	68 "

[2]Clearances, Baltimore to Brazil, calendar year 1858:

	Vessels.	Tonnage.
Baltimore Vessels........	56	18,031
Other American Vessels.........................	5	918
Foreign Vessels............	2	686

[3]*Price Current*, annual statements for 1862 to 1864.

cent. over the previous five years, in the face of a marked decrease in the exports to Great Britain and the West Indies, and a general decrease of thirty per cent. From the war to 1884, the export to Brazil remained the largest part of Baltimore's exports of flour. In 1860, Baltimore's share in the exports of flour to Brazil from this country was only thirty-four per cent.; the average from 1861 to 1864 was forty-two per cent.[1] (2) The manufacture of a brand especially adapted to the Brazilian market. This has given Baltimore a great advantage as a competitor for the trade, and has introduced a conservative element into its trade.

A marked change also occurred in the character of the vessels engaged in the trade with Brazil. In 1858, as has been shown, ninety-eight per cent. of the exports was carried in American vessels; in the fiscal year 1863, probably something less than eighty-one per cent.,[2] and in 1867, only seventy-four per cent., was carried in American vessels. The cause of this change, which was to a large extent merely a change of flag and not of vessel, was caused by the fear of Confederate privateers. This change appears more largely in the case of imports, and will be more fully treated below.

Imports.

During the period from 1825 to 1865, the principal commodities imported into Baltimore from the east coast of South America were coffee, hides, and sugar. Coffee was received from Brazil and Venezuela, hides from Uruguay, Argentina, and Brazil, and sugar from Brazil and, during part of the time, from British Guiana. All of these commodities require consideration; but the greatest stress must

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[1]Similarly, of flour exported to the Plata, Baltimore's share was 36 per cent. in 1860, and 46 per cent. average from 1861 to 1864.

[2]Returns of exports in foreign vessels for the first quarter of 1863 are missing.

be laid on the trade in coffee. Coffee has been the fundamental and the permanent element in Baltimore's import trade. The history of the coffee trade—the most characteristic branch of the South American trade, and the one representing the greatest value—merits fullest investigation.

The period from 1825 to 1865 brought about a steady and considerable increase in Baltimore's imports from Brazil relative to its total imports from the east coast of South America; and also a general increase in the proportion of coffee to total imports from Brazil.[1] This movement has become more marked in the period since the Civil War.

Before we enter upon the consideration of the coffee trade, it may be well to show briefly the general course of Baltimore's trade in hides and sugar. Prior to the importation of coffee from Brazil to any large extent, Baltimore had received hides to a much greater value than coffee from South America. Hides continued to be imported in increasing quantity after the change in the Brazilian trade; but coffee became, in the early twenties, the principal import into Baltimore. The trade in hides continued to increase until about

[1]Column (1) gives the proportion of imports into Baltimore from Brazil to total from the east coast of South America; column (2), the proportion of coffee to total imports from Brazil; column (3), the proportion of coffee, and column (4), the proportion of hides, to total imports from the east coast.

Period.	(1) Per Cent.	(2) Per Cent.	(3) Per Cent.	(4) Per Cent.
Year ending Dec. 31, 1823....	32	59	34	22
Year ending Dec. 31, 1827 ...	93	55	52	33
9 Months ending Sept. 30, 1834	58	93	58	29
Year ending Dec. 31, 1838....	75	95	79	11
Year ending June 30, 1848.....	76	89	73	21
Year ending Dec. 31, 1858....	80	94	77	9

The figures for 1827 in the first two columns are misleading. In that year 35 per cent. of the imports from Brazil consisted in hides, due merely to their exportation through Rio Grande instead of Montevideo and Buenos Ayres. In 1834 no hides were imported from Brazil. A more important and natural increase in the importation of hides caused the decrease in columns (2) and (3) for 1848.

1835.[1] The principal part of these hides came from the Plata region, and were exported usually from Montevideo and Buenos Ayres, but sometimes from Rio Grande. The importation of heavy hides diminished considerably the next five or ten years, but again increased in quantity about 1850. The increase was but temporary; the decline which followed brought about the permanent diversion of the trade in the Plata hides to New York and Boston.[2] Baltimore's trade came to be composed more largely of the lighter domestic hides. The period before the Civil War witnessed the beginning of the decline in Baltimore's import trade with Uruguay and Argentina, which has become much more marked in the present period.

The decline in Baltimore's imports of hides from Uruguay was preceded by a decline in the other imports from Uruguay. In the fiscal year 1848, hides constituted fifty-six per cent. of the imports from that country into the United States,

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[1]During the first nine months of 1834, hides to the value of $300,735 were imported into Baltimore from South America—of which all but $46,648 came from the east coast.

[2]*Price Current*, annual statements for 1854 and 1855. The table given shows the decline in the number of hides imported into Baltimore from Uruguay and Argentina, and the increase in the number received coastwise. Since 1870 the imports of South American hides at Baltimore have been insignificant.

	Average 1848 to '51	Average 1852 to '55	Average 1856 to '59	Average 1860 to '63
Uruguay and Argentina.	93,922	21,264	44,917	22,790
Brazil................	61,347	25,706	16,584	3,907
Venezuela...............	24,781	27,158	12,958	961
Pacific Ports.............	5,793	10,411	5,222	10,136
Other Foreign...........	6,032	17,234	11,043	1,362
Total Foreign...........	191,875	101,773	90,724	39,156
Coastwise..............	40,848	46,861	136,688	131,188

In the fiscal year 1896 the proportion of the imports from Argentina and Uruguay coming to New York and Boston was as follows:

Countries.	New York. Per Cent.	Boston. Per Cent.
Argentina.........................	55	44
Uruguay............................	85	13

and ninety-one per cent. of the imports into Baltimore. Baltimore demanded only hides from Uruguay; other ports could receive general cargoes.

An account of Baltimore's trade in sugar would be very instructive. In the sugar trade, two forces are operative which have affected but slightly the trade in other South American products: (1) trust production, and (2) the tariff. The precise effect of these two forces on the localization of industry would be very difficult to estimate, but at the same time the results of the inquiry would be highly valuable. Such a study is outside the limits of this monograph. Coffee comes mainly from South America; but the principal source of sugar has been, not South America, but the West Indies.

Baltimore imported sugar from South America to the value of from thirty to forty thousand dollars annually from the War of 1812 to about 1855. The importance of the sugar trade of Baltimore dates from the erection of two refineries in Baltimore in that year.[1] In the decade between 1848 and 1858, the imports of sugar from South America increased to ten times their former amount.[2] Demand for sugar gave rise to Baltimore's import trade with the Guianas. Ninety-eight per cent. of Baltimore's imports from British and Dutch Guiana consisted in sugar. The subsequent history of the trade with those countries has been determined entirely by the varying success of Baltimore's refining industry. The trade was lost during the Civil War, but regained in 1871, after that industry had been re-established.[3] From

[1]*Price Current*, annual statements for 1855 and 1856.

[2]Imports of sugar into Baltimore during the fiscal year 1848 and the calendar year 1858, compared:

	1847-48.		1858.	
British Guiana	....	....	4,994,111 lbs.,	$197,219
Dutch Guiana	....	....	131,972 "	5,888
Brazil	806,463 lbs.,	$33,512	3,431,579 "	146,185
Venezuela	33,450 "	1,422	2,428 "	84
Total	839,913 lbs.,	$34,934	8,560,090 lbs.,	$349,376

[3]*Journal of Commerce*, annual statement for 1871.

1872 until 1884, and again during the year 1891, the trade of Baltimore with British Guiana was considerable. At other times, the trade has been insignificant.

Coffee.

There has been a tendency, not only for coffee to increase in proportion to total imports from South America, but for the coffee imported to consist more and more largely of Brazilian.

Coffee became the principal import from Brazil about 1820; by 1834, it constituted over ninety per cent. of the imports from that country. Thus at an early period, Baltimore lost, to a considerable extent, its general import trade with Brazil.[1] One leading characteristic of Baltimore as an importing point has been its lack of demand for mixed cargoes. Hence, Baltimore has been most successful in proportion as the article of its demand has been the staple product of a country. Baltimore's restricted demand did not prove detrimental to its trade in coffee from Brazil; for coffee has been sufficient in itself to furnish full cargoes. In other lines of trade, however, the restricted demand of Baltimore has often necessitated partial cargoes, while rival ports, by taking also some general commodities, have secured full cargoes.

The importance of the coffee trade, together with the amount of vested interests involved, has proved another conservative element in this branch of Baltimore's South American trade. Throughout the entire period from 1825 to 1860, coffee was the most successful line of imports which Baltimore possessed. The trade was constantly increas-

[1]The relative importance of Baltimore as a market for coffee and for other Brazilian products may be shown by another comparison. In the fiscal year 1848, Baltimore received 26 per cent. of the Brazilian coffee imported into the United States, but only 8 per cent. of other imports from Brazil.

ing in value. It was conducted on Baltimore account. The coffee was transported mainly in vessels belonging to Baltimore, and regularly employed in the trade. There was a very close connection between the owners of these vessels and the importers of coffee.

There was also an element of stability in the trade because of Baltimore's extensive exports of flour to Brazil. The trade was reciprocal. A cargo each way was assured.

The course of the trade in Venezuelan coffee during this period was in marked contrast with the trade in Brazilian coffee. Baltimore's first imports of coffee came from Venezuela; it was not until after 1820 that the coffee imported from Brazil surpassed that imported from Venezuela. During the next twenty years the coffee trade with the latter country slowly increased; but, from 1840 to 1860, the decline in this trade was marked. The period as a whole, however, witnessed a much more considerable decline in the importation of other Venezuelan products.[1] This exerted a more injurious effect on the importation of Venezuelan coffee than the corresponding phenomenon did on the importation of Brazilian coffee. It seems to be largely accountable for the fact that vessels from Venezuela were usually unable to secure full cargoes.[2] Coffee alone could not furnish a full cargo from Venezuela; it could from Brazil. The relative decline in the import of Venezuelan coffee is marked; in 1823 the quantity of coffee imported from Venezuela was one-half as great as that from Brazil; in 1838, the proportion was one-ninth; and in 1858, less than one-twelfth. The trade was no longer sufficient to justify

[1]Proportion of coffee to total imports from Venezuela:

	1823.	1827.	1834.	1838.	1848.	1858.
Per cent....	35	25	44	58	51	68

[2]In the fiscal year 1848 the tonnage entering Baltimore from Venezuela was 2,460; the estimated bulk of the imports, 1,402 tons. Vessels entered with cargoes only to 57 per cent. of their capacity. The proportion of cargo to tonnage entering from Brazil was 93 per cent.

Baltimore importers in carrying stocks of Venezuelan coffee. The market was usually bare of that description.[1] Without carrying stocks, the trade lost the regularity necessary to its very existence.

The end of the trade occurred in 1859. That year brought the last regular importation of Venezuelan coffee in any considerable amount. The importations since that time have been irregular and inconsiderable. Down to the Civil War, the trade in coffee was becoming more and more limited to Brazilian coffee; since the war, Brazil has furnished the whole quantity imported by Baltimore.

The comparative imports of Brazilian coffee at the different ports of this country is the subject next to be considered. Data for this inquiry are available only from 1841.[2] Before 1840 Baltimore and New York had been the chief competitors for the coffee trade. Neither had gained any decisive advantage. New York received more coffee than Baltimore, but the excess was small, and Baltimore did not yet admit its inferiority to New York. In 1840 an upward tendency was noted in Baltimore's trade; shipments to the south and southwest had largely increased.[3] The western

[1] *Price Current*, annual statements for 1843, 1845, and 1855. The irregularity and gradual decline in the imports of Venezuelan coffee into Baltimore may be seen in the following table:

Years.	Bags.	Years.	Bags.	Years.	Bags.
1838	11,612	1854	20,966	1862	350
1847	15,852	1855	12,565	1863	......
1848	25,960	1856	17,798	1864	4,504
1849	23,646	1857	4,077	1865	......
1850	24,040	1858	11,158	1866	2,761
1851	21,081	1859	8,348	1867	1,220
1852	16,241	1860	887	1868	.....
1853	12,041	1861	......		

[2] I have used the table in *Hunt*, xxvi. 75, for the years 1841 to 1850; it is taken from a Brazilian source, and hence is compiled only from declared destination. It does not differ materially from the figures in the Baltimore *Price Current*. The *Price Current* gives comparative tables for 1854 and subsequent years.

[3] *Price Current*, September 26, 1840, May 8, 1841. *Cf.* annual statement for 1852.

shipment the next year, however, was smaller, owing to increased importation at New Orleans. Baltimore's trade increased generally during the years from 1841 to 1845. During that period, New York was the principal importing point, New Orleans ranked second, and Baltimore third. But Baltimore received eighty per cent. as much coffee as New York.[1]

The first direct importation of coffee into New Orleans occurred in 1835. Seven years later, it received more coffee from Brazil than any other port in the United States. "Everything now indicates," it was said,[2] "that very nearly, if not the whole of this trade, must very soon be ours." During the entire period from 1846 to 1858, except probably the year 1851, New Orleans maintained first rank as importing point for Rio coffee. The phenomenally rapid growth of the coffee trade of New Orleans at this time was due mainly to its advantageous situation. The chief place of consumption for Rio coffee was in the west. New Orleans was on the natural water route from Rio Janeiro to the west. Comparing the two five-year periods, 1841 to 1845, and 1846 to 1850, the increase of the trade of New Orleans was eighty-one per cent., while the increase of New York was only thirty-one per cent. Baltimore retained its rank as third, but its trade had increased more rapidly than the trade of New York.

New Orleans, however, during the whole of its history, has lacked one great essential to permanent success. It

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[1]Average comparative imports of coffee, by bags, and per cent. increase, for periods of (calendar) years:

	1841 to '45.	1846 to '50.	Increase.	1855 to '59.	Increase.
At Baltimore......	120,072	164,076	37	213,922	30
At Boston..........	37,069	37,651	2	6,860	*
At New Orleans...	135,514	245,338	81	361,331	47
At New York.....	150,086	195,867	31	340,410	74
At Philadelphia...	28,998	38,872	34	115,442	197
Other (Southern) Ports	9,054	25,241	179	57,598	128
Total..............	480,793	707,045	47	1,095,563	55

*Decrease, 81 per cent.

[2]De Bow: *Industrial Resources*, i. 286; see also, ii. 320, iii. 563.

has possessed little export trade. It lacked the flour trade necessary to complete its coffee trade, as Richmond lacked the demand for coffee necessary to the full development of its flour trade. The receipts of flour at New Orleans consisted of the western flour which has proved unacceptable to the Brazilian market. New Orleans possessed no decided advantage in regard to distance from Brazil, because the course of vessels, after passing out of the Gulf, lay considerably to the north before proceeding to Rio Janeiro. The one permanent advantage of New Orleans was its natural water communication with the interior. That advantage came to be greatly lessened by the construction of canals and railroads between the interior and the seaboard.

During the last decade before the war, there was a general increase in the coffee imported into this country; but the increase at New York and Philadelphia was the most marked feature of the period.[1] The year 1859 restored to New York first rank—a position it has ever since maintained. It is important to note that this change in favor of the seaboard as against the Gulf occurred before the outbreak of the war; commercial, not merely political, forces gave the victory to New York over New Orleans. The war merely intensified industrial conditions. Eastern cities had secured artificial communication with the west both by railroad and canal. New York secured western communication earlier than Baltimore, but its route was somewhat longer. With the establishment of communication between the west and the seaboard, the one great advantage of New Orleans was lost.

Baltimore's western communication dates from 1851, the year of the opening of the Chesapeake and Ohio Canal through its entire length. In 1851, Baltimore in all probability imported a greater quantity of Brazilian coffee than any other port in this country; but its pre-eminence was lost

[1]The increase at Philadelphia is important as showing that the victory of New York was a victory for the seaboard.

again the next year.[1] After the opening of the Baltimore and Ohio to Wheeling, the coffee transported west from Baltimore increased very rapidly. That road is said to have offered special inducements for the shipment of coffee; and, in 1858, the claims of Baltimore to a larger share of the trade with the interior were presented.[2] Toward the close of the period, western shipment required much the larger part of the imports at Baltimore.

In general, during the period from 1825 to 1860, the trade of Baltimore in coffee steadily increased. Its increase, however, failed to keep pace with the increase of New York and New Orleans. In the years from 1841 to 1845, Baltimore received twenty-five per cent. of the total imports of Brazilian coffee into the country; in the years from 1855 to 1859, it received only twenty per cent. Its coffee trade, however, was extensive and firmly established by the large vested interests involved. Its communication with the west had been improved, and it shipped thither large quantities of coffee; yet the period, as a whole, had greatly reduced the difficulties of transportation west from the seaboard, and had thus diminished Baltimore's advantage from its greater proximity to the west. The period witnessed the rise of communication with the west by the Mississippi River, and also the relative decline in its importance. The changes in Baltimore's trade were gradual. The principal changes

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[1]Unfortunately, complete figures for the year 1851 are not available. *Hunt*, xxvi. 76, gives the following figures for the first nine months: Baltimore, 197,399 bags; New York, 179,791 bags; New Orleans, 180,296 bags.

The total imports for the year at Baltimore, given in the *Price Current*, are perfectly consistent with this: 266,240 bags, against 150,194 bags in 1850, 224,082 bags in 1852, and 182,338 bags in 1853.

[2]*Price Current*, annual statement for 1858. Western shipments of coffee, by bags, over the Baltimore and Ohio for fiscal years ending September 30, and imports for calendar years, are contrasted. See *Baltimore and Ohio*, annual reports; *Price Current*.

	1849.	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.
Import.	186,173	185,980	200,828	249,060	197,989	203,560	188,019	230,984	181,292
West'n ship't...	10,062	48,539	81,934	95,098	121,684	134,492	139,962	120,792	178,640

during the period were the decline in Baltimore's trade in Venezuelan coffee, and the increased proportion of coffee in Baltimore's imports from Brazil, almost to the exclusion of general imports.

Baltimore possessed the two great essentials for the preservation of its trade: regular means of transportation, and, by virtue of its flour trade, reciprocal commerce. This period was the least successful in the history of the coffee trade of New York; although at the end of the period New York ranked first, it was only first among equals. No concentration of the trade in Brazilian coffee had taken place.

The general effects of the Civil War on the coffee trade were four: (1) A very considerable diminution of the total imports took place, due largely to the higher prices, particularly after the duty of four cents per pound was imposed in August, and five cents in December, 1862. (2) The war closed the southern ports to foreign commerce, and caused at least a suspension of their coffee trade. Trade was thus diverted, which from 1855 to 1859 had formed thirty-eight per cent. of the total imports. (3) Baltimore suffered a marked decrease in its trade in coffee, considered both relatively and absolutely. (4) New York's share of the trade increased largely. The table presented shows the extent to which these influences operated.[1] The last two points must be considered more fully.

Baltimore suffered no direct closing like the southern ports. Yet the indirect effects of the war on its trade were

[1]Imports of coffee, by bags, for the average of the five calendar years, from 1855 to 1859, for the years 1860 and 1861, separately, and the average from 1862 to 1864:

	1855 to '59.	1860.	1861.	1862 to '64.
At Baltimore	213,922	181,292	137,300	80,972
Boston	6,860	8,000	8,288	3,059
New Orleans	361,331	254,362	141,987	.....
New York	340,410	278,246	530,834	389,413
Philadelphia	115,442	55,827	57,699	12,624
Southern Ports	57,598	81,754	25,760	.....
Total	1,095,563	859,481	901,868	486,068

no less apparent, although, of course, less far-reaching. Baltimore's trade declined fifteen per cent. in 1860, thirty-six per cent. in 1861, and sixty-two per cent. during the remainder of the war, from the level it had reached during the years 1855 to 1859. The Baltimore and Ohio was the main outlet for Baltimore's coffee; that road, as we have seen, was closed to traffic repeatedly during the war. The demand for Baltimore coffee was thus limited almost entirely to local consumption and the wants of the army in the vicinity. During the latter part of the war, the government demand amounted to nearly one-half the total consumption of coffee at Baltimore.[1]

The war seems to have exerted another injurious effect upon the trade of Baltimore. The depredations of Confederate privateers, particularly between this country and Brazil, caused the substitution, to a large extent, of foreign for national vessels in the Brazilian trade. Underwriters in Brazil refused to insure coffee carried in American vessels, except at a discriminating rate.[2] The substitution of foreign vessels was undoubtedly injurious to the trade of Baltimore. Its imports had been carried almost exclusively in sailing vessels belonging to the port. What prejudiced their use was a disadvantage to Baltimore's trade.[3] Baltimore was not in a position to change its method of transportation. As a result, notwithstanding an enormous decline in its entrances during the war, the average proportion of cargo to tonnage also fell.[4] It is noticeable that during the war the foreign clearances for Brazil increased much more rapidly, at least suggesting the thought that

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[1]*Price Current*, annual statement for 1864; see also statements for 1861 and 1862.

[2]*Commercial Relations*, 1862, 663, 675; 1863, 609, 616.

[3]During the fiscal years 1856 to 1860, 90 per cent. of the tonnage entering Baltimore was American; during the years 1861 to 1865, the proportion was 88 per cent., and 1866 to 1870, 52 per cent. Since 1885, few foreign vessels have entered Baltimore from Brazil.

[4]From 1855 to 1860, the proportion is estimated at 69 per cent.; from 1862 to 1864, 49 per cent.

many of the vessels carrying coffee to New York took their return cargo from Baltimore. The prosperous condition of its flour trade during the war was doubtless an important factor in Baltimore's maintenance of a regular trade in coffee in the face of these serious obstacles.

The other effect of the Civil War that we must consider is the concentration of the trade at New York. From 1855 to 1859, New York received on the average thirty-one per cent. of the total imports of Brazilian coffee; from 1862 to 1864, its proportion was eighty-one per cent. The question had hitherto been what city should receive the largest imports; the question henceforth was, should one city control the trade. The tendency toward concentration was as yet due to military rather than commercial causes. The communication of New Orleans with Brazil, and of Baltimore with the west, was cut off. Transportation facilities between Brazil and New York were not only maintained, but increased by the more extensive use of foreign vessels, which naturally sought the largest port and the port farthest from the seat of war. New York also kept its communication with the interior open, both by railroad and canal, during the entire period of the war.

The country as a whole, and all parts of it, except New York, lost through the Civil War. New York not only gained relatively, but, in the face of a decline of more than half for the whole country, its absolute gain was considerable for the whole war period. During the war, the import of coffee at New York was nearly five times that at the port ranking second; before 1860 a difference of ten per cent. between the principal port and the port ranking second was unusual. The war amassed sufficient trade at New York to make it beyond question the chief place in the United States for the importation of coffee. The question still to be solved was the extent to which the trade should be concentrated there.

II. Trade with the West Coast.

Exports.

The exports of Baltimore to the west coast of South America may be briefly treated. The opening of the period now under consideration marks the highest point in the history of the exports from Baltimore to those countries. In 1827 the exports to Chile were of considerably more than twice the value of the exports to Brazil. The composition of the exports, however, was entirely different. The chief element in the exports to Brazil was flour, while the chief elements in the exports to Chile were foreign goods re-exported and domestic dry goods.[1] The exports in 1859[2] present a marked contrast to those of 1827. In 1859 the exports to Brazil were nearly six times as great as those to Chile, and more than three times as great as the exports to Chile and Peru combined. The re-export trade had been lost; the trade in domestic dry goods had suffered a large

[1]Exports from Baltimore during the calendar year 1827:

Destination.	Flour.		Domestic Dry Goods.		Re-exports.		Total Exports.
	Value.	Per Cent.	Value.	Per Cent.	Value.	Per Cent.	
Chile.......... ..	136,657	16	195,251	22	271,818	31	873,453
Peru................	42,545	35	37,334	31	31,528	26	120,803
Brazil..............	274,078	71	19,786	5	28,506	7	386,930

[2]Exports from Baltimore during the fiscal year 1859:

Destination.	Flour.		Domestic Dry Goods.		Re-exports.		Total Exports.
	Value.	Per Cent.	Value.	Per Cent.	Value.	Per Cent.	
Chile................	4,400	2	102,173	55	3,022	2	185,771
Peru	2,865	2	59,936	41	4,628	3	147,012
Brazil..............	730,281	68	135,716	13	16,070	1.5	1,076,177

relative decline, and was finally destroyed by the Civil War. Chilean wheat was able fully to satisfy the demand of the west coast for flour, the one article in which Baltimore possessed a distinct advantage over New York and Europe. Throughout the whole history of the export trade to South America, the tendency has been for Europe to supply directly the demand for dry goods, Baltimore to supply the demand for flour, and New York to ship assorted cargoes. This general tendency accounts for the relative decline of the export trade between Baltimore and the west coast of South America during the period treated in this chapter, and the total loss of the trade in the subsequent period.

Imports.

By far the most important branch of the import trade of Baltimore with the west coast of South America, between 1850 and 1860, was the trade in guano. That trade will be fully considered later. Before its rise, the chief imports were copper and silver. It has been characteristic of the trade with Chile and Peru that the imports consist of some natural deposit, either metal or chemical—silver and gold, platinum, copper, guano, nitrate of soda. Neither agricultural nor manufactured products have been imported to any considerable extent.[1] Copper came principally from Chile, specie from Peru. The extensive importation of the precious metals lasted until about 1840, averaging perhaps two hundred thousand dollars a year. Silver was, throughout the whole period, much more largely imported than gold; until 1838, very little gold was received.

Copper was increasing in amount during the entire period. About 1834 copper first surpassed silver in importance. The increasing relative importance of copper, and the decreasing importance of silver and gold, appears in

[1]See *Hunt*, vi. 62-64.

the table below.[1] At the beginning of the period, nearly half the imports from Chile and Peru consisted of silver and gold; at the close, no specie or bullion was imported. At the beginning, less than one-fifth of the imports consisted of copper; at the close, copper constituted four-fifths of the imports. The decade from 1848 to 1858 marked a decided change in Baltimore's trade in copper. In 1856 the two smelting establishments[2] petitioned the legislature to increase their capital stock. The year 1858 proved a prosperous one in the copper trade. Over a million dollars' worth of the unwrought metal was imported from South America, against five hundred thousand dollars' worth from Cuba and domestic sources combined. In that year eighty per cent. of the imports from Chile consisted of copper.[3] During the Civil War the two companies were consolidated. The Copper Act of 1869[4] prevented the further importation of Chilean copper, and caused the works at Baltimore to be closed. The industry was re-established in 1872, however, to work on domestic ores. Baltimore's present copper smelting in-

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[1]Proportion of specie and bullion and of copper to total imports from Chile for 1848 and 1858, and from Chile and Peru for former years:

Year.	Proportion Copper.	Proportion Silver and Gold.
1823	19 per cent.	49 per cent.
1827	32 "	53 "
1834 (9 months)	47 "	39 "
1838	41 "	34 "
1847–'48	52 "	0.2 "
1858	80 "	.... "

[2]The Baltimore Copper Smelting Company, situated at Canton, incorporated in 1850, and the Baltimore and Cuba Smelting and Mining Company, at Locust Point, incorporated in 1845. Maryland *Senate Journal*, 1856, 54, 58, 65. Baltimore *Price Current*, annual statements for 1858 and 1860. *Exposition of the Baltimore and Cuba Smelting Company*, 1845.

[3]Valued in the entries at $376,345.

[4]Taussig: *Tariff History*, 219-221. The present company is the Baltimore Copper Smelting and Rolling Company, at Canton; it now yields a much larger product of copper for casting than any other establishment in the country. *Board of Trade*, Report, 1896, 32.

dustry thus owes its origin to Baltimore's South American trade before the Civil War.

Baltimore secured some little trade with Ecuador from about 1838 to the outbreak of the war. The chief articles of importation were straw hats, bark, and cocoa. The imports were inconsiderable in amount, were usually warehoused, and largely either transhipped or re-exported. Ecuador, moreover, exerted no strong demand for goods from Baltimore. Baltimore's import trade was mainly that of carriage, and proved only transient. Since the Civil War, Baltimore has had no further trade with Ecuador.

Guano.

Guano was the first commercial fertilizer employed in this country to any large extent. It thus marks an important change in agricultural methods—the end of the period of entire dependence on crude substances produced on the farm. The more careful fertilization of land, demanded alike by theoretical study and practical farming, was rendered possible by the use of a substance capable of bearing the costs of transportation.[1]

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[1]The introduction of commercial fertilizers has an important theoretical as well as practical interest. Carey's principal argument in favor of protection was based on the necessity of returning to the soil those properties which have been transferred to the crop. Manure is a substance too bulky to admit of transportation to any considerable distance. Carey maintained, therefore, that the export of agricultural produce meant the impoverishment of the soil. *Social Science*, i. 145, 274.

The use of commercial fertilizers has taken away the special force of Carey's argument; it has become merely a particular case of his second argument in favor of protection, as a means of saving cost of transportation. It is to be noted that Carey made reference to guano, with no thought of the effect that the movement, begun by the importation of guano, would have upon his system. Guano seemed to Carey an expense to be avoided; he did not see that it might lead to a greater saving of expense. *Ibid.*, i. 276, iii. 128 note.

Owing to the more intensive cultivation in England, the importa-

A special interest thus attaches to the introduction of guano into the United States. The guano first imported, and incomparably the favorite variety down to the Civil War, was the Peruvian; and as Peruvian guano dominated the field of fertilizers, so Baltimore was the leading market for that article. The introduction of guano, and its most extensive importation, thus took place at the port which was the best distributing centre for the south—the section which, Carey said, possessed soil most in need of renovation.[1]

To understand the guano trade of Baltimore, it is necessary to give a general view of the system under which Peruvian guano was sold.

The trade in Peruvian guano has always been subject to a government monopoly.[2] The deposits are found in uninhabited portions of the mainland and the islands off the coast of Peru. Consequently ownership in the deposits vests in the government. Down to the Civil War, the exports were shipped exclusively from the Chincha Islands.

The system under which guano was exported may be called the system of consignment. The government retained ownership of the deposits, but contracted, in return for a consideration, to consign all guano exported to one house, and to pay the consignees a commission out of the proceeds from the sales. There was thus both an element of public and of private interest in the sale of guano. In order to introduce the article into commerce, large capital and enterprise were essential. The consignees furnished the initial expenses necessary, and their extensive business connections were important means of advertising

tion of fertilizers began there somewhat earlier than in this country. This fact probably accounts for Mill's refutation of Carey's argument in 1848. *Principles of Political Economy,* book v., chap. x., § 1, p. 557 note (People's edition.)

[1] *Social Science,* i. 83.

[2] The best information concerning the general trade in Peruvian guano is to be found in *House Report,* No. 347, 33d Cong. 1st sess., and *Senate Executive Document,* No. 25, 35th Cong. 2d sess. In the latter document, p. 71, is given a list of the various consignees. A general account of the trade, based on these sources, is given in *Commercial Relations,* 1856, i. 699-710.

the new fertilizer. Sale or lease of the deposits to a private house was, however, entirely impracticable. The return was so uncertain as to render the sale of the deposits for anything like their true value out of the question. The government bore the risk and received the profits; the active interest of the consignees was secured by making their returns proportionate to the value of the guano sold, and by giving them a monopoly of the trade.

The consideration given by the consignees consisted usually in a loan upon security of the shipments of guano. The amount of the loan, the rate of interest, the duration of the contract, the amount of guano to be exported within that time, the markets to which it might be shipped, and the rate of commission, varied with each contract. The government obtained better terms as the trade became more firmly established. In the last contract before the Civil War, that of 1857, the rate of interest was fixed at five per cent., and the commission at three per cent., while the consignees agreed in addition to pay five per cent. interest on all balances due to the government remaining in their possession.[1]

During the period from 1840 to the Civil War, guano was imported into the United States under contracts with three houses. From 1840 to 1851, all guano exported from Peru was consigned to Gibbs and Company, of London. From 1851 to 1857, Felipe Barreda and Brother, and from 1858 to 1861, Zaracondequi and Company, were sole consignees for the United States.[2]

[1]Objections to the system of consignment came from consumers rather than the government; these will be considered later. At various times the system of sale at the deposits was advocated by certain members of the Convention as a remedy against the mismanagement of which the consignees were accused. In 1857 a revolutionary chief, Vivanco, held the Chincha Islands for several months; during that time only was guano sold at the deposits.

[2]The American agents under these contracts were, respectively, Samuel K. George, Baltimore, and Edwin Bartlett, New York; F. Barreda and Brother, Baltimore, until 1856, and later New York, and T. W. Riley, New York; and Barril and Mur, New York and Baltimore.

Probably the first guano received in this country was a small lot brought into Baltimore in 1824.[1] The incident led to no practical results. It was not until 1844 that any further importation took place. Guano had been introduced into England between 1840 and 1844. In the latter year the English market was temporarily overstocked;[2] it was doubtless this fact that led the English consignees to introduce Peruvian guano into the United States. An agent was appointed in Baltimore, and in July, 1844, the first regular importation of Peruvian guano into this country on government account took place at Baltimore.[3] A few months later a New York agent was also appointed. Baltimore's priority in securing an agency and in receiving guano was doubtless due largely to its previous extensive trade with the west coast of South America. The article, moreover, was already in demand near Baltimore; earlier importations on private account, although small in quantity, prove this. The need of such an article in that section is also indicated by the publication, in the Baltimore *Price Current*,[4] of several extracts concerning guano. Guano was first brought into practical use in Maryland.[5] The need of a powerful fertilizer to renovate the worn-out tobacco lands of Maryland and the neighboring States was

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[1] Described in the *American Farmer*, of December 24, 1824, vol. vi., 316-317.

[2] Owing to free importation from an unclaimed island off the coast of Africa. *Hunt*, xxxiii. 366.

[3] Earlier in the year two small lots were imported at Baltimore, probably on private account, and for purposes of experiment.

[4] Issues of June 29, July 6, August 17, September 14, December 14, 1844, and January 11 and 25, 1845.

[5] A pamphlet, issued as an advertisement by the Baltimore agent in the fall of 1844, *Peruvian and Bolivian Guano*, contains five American testimonials of which four are from Maryland farmers, and the fifth, of Mr. I. E. Teschemacher of Boston, is that of a scientific investigator. Two pamphlets were issued in New York in 1845, but contained no new American testimonials; it seemed difficult to introduce guano in the north. Accounts of early experiments in Maryland appeared in the *American Farmer*, new series, vol. i., 1845-1846.

strongly felt; the ammoniac properties of Peruvian guano were peculiarly suited to those lands. Extravagant hopes were built upon the new fertilizer.[1]

Through the entire period, the centre of demand for guano was in the south.[2] Until 1852 the south was supplied almost entirely from Baltimore; in that year direct importation into Norfolk and Alexandria first took place.[3] Baltimore continued, however, to control a very large part of the trade. The use of guano even extended into the Gulf States.[4]

The guano first imported into Baltimore was sold to farmers in small lots. One great advantage claimed by the

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[1]GUANO.—"And here begins another revolution—a revolution in *agriculture* . . . —and all the old worn-out tobacco lands in Maryland and Virginia, the sand hills along the sea coast of Virginia and North Carolina . . . . —all these will . . . become converted to the most arable and productive soils of the country. . . . In effect, this article, *Guano*, will transfer the Western lands to the Atlantic!" *Price Current*, September 14, 1844. The *American Farmer* also contained a great deal of matter on guano, and the best methods of its application.

[2]In 1852, the Peruvian agents published at New York a treatise on *Guano*, by Solon Robinson. This attempt to extend the use of guano in the north really shows the preponderance of the southern demand. Testimonials from Virginia occupy 11 pages, Maryland 9, North Carolina and Delaware 2 each, Pennsylvania and New Jersey only 1 each, Long Island 2, and Massachusetts 5. In a revised edition, additional testimonials from Long Island are given.

[3]*Price Current*, annual statement for 1852. From 1844 to 1851, about 38,000 tons, value over $1,500,000, out of a total of 66,000 tons, were imported at Baltimore.

The imports of guano into Baltimore from Peru, in tons, by calendar years, from 1844 to 1870, except 1854, were as follows:

1844	445	1852	25,500	1861	27,424
1845	.....	1853	32,152	1862 to 1865	.....
1846	1,170	1855	31,316	1866	13,000
1847	1,112	1856	15,728	1867	30,175
1848	890	1857	15,822	1868	1,700
1849	2,700	1858	8,473	1869	7,425
1850	6,800	1859	39,194	1870	41,243
1851	25,000	1860	54,134		

[4]De Bow's *Commercial Review*, xiii. 627-630.

agents for the monopoly in guano, was that it brought about direct sale from producer to consumer, and thus guaranteed the quality of the article and saved the profits of the dealer. The failure of the agent to keep an ample supply of guano always on hand lost this advantage. From 1848 until 1852, the end of Gibbs' agency, practically no stock was held in the hands of the local agent at Baltimore. The demand was continually greater than the supply. Local dealers instituted the practice of buying up cargoes on arrival, often before arrival, and thus maintained a monopoly of the local supply and raised the retail price. Special complaint was brought against the Baltimore agent for encouraging the practice.[1] But the fault lay with the system of sale at fixed prices, and the limitation of the supply to keep up prices. The Baltimore market was often entirely bare of guano, both in agents' and dealers' hands.

Barreda, on assuming the agency, promised to break up the monopoly on the part of dealers by keeping the market better supplied, and by selling in small lots. His promise immediately caused a fall of three dollars per ton in dealers' prices.[2] He also held out the hope of reduced prices; but in neither case was his promise consistently kept.[3] Only in the years 1854 and 1855 was the supply sufficient. Prices, moreover, were raised from $46.20 in 1852, to $65 in 1857, notwithstanding decreased freight charges.

There were many complaints against the methods of the agents, especially from Maryland, Virginia, and Delaware.[4]

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[1] *House Report*, No. 347, 29.

[2] From $50 to $47 per short ton; agent's price, $46.20 per long ton. *Price Current*, October 23, 1852.

[3] The next year, 1853, four times the actual supply could easily have been taken. *Price Current*, annual statement for 1853.

[4] A petition of 2000 citizens of Delaware led to the Biddle Report, (*House Report*, No. 347, 33d Cong. 1st sess.,) recommending a discriminating duty on Peruvian guano, progressive in rate, as the price rose above $40 per ton. *De Bow*, xviii. 33-35. See also *Hunt*, xxxvii. 574.

Either sale of guano at the islands at a fixed price, or purchase of the islands by the United States, was advocated. The Maryland Agricultural Society emphasized the importance of guano in the "renovation . . . of our worn-out soils, which has been conclusively proved by its extensive use, more particularly in the States of Delaware, Maryland, and Virginia,"[1] and urged the government to obtain, as far as possible, the removal of restraints on the trade. In 1854 another committee was appointed to urge the government to remedy the abuses of the Peruvian system.[2] In the legislature of Maryland resolutions were introduced in 1852, which, however, failed to pass until 1854, petitioning the government to adopt some measures "by which the present monopoly in the sale of guano in this State and other States of the Union may be removed and the agricultural interests of our country thereby greatly promoted."[3]

As early as 1846, the legislature of Maryland deemed it necessary to provide for the inspection of guano imported into Baltimore; in 1852 a bill to provide a more efficient inspection of guano was introduced, but not passed until 1854. Under the first law the charge for inspection was forty cents per ton, of which one-half was added to the price of the guano, while the other one-half was considered an offset to the cost of weighing which would otherwise have been necessary. Twenty cents thus constituted the differential charge against Baltimore.[4] The bill adopted in 1854 reduced the charge

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[1]*House Report*, No. 347, 21. Communication of May 30, 1850.

[2]*Senate Executive Document*, No. 25, 25-32.

[3]*Senate Miscellaneous Document*, No. 18, 33d Cong., 1st sess.

[4]After the reduction of the charge, the importers ceased to add the inspection fee to the price. *Report of Inspector of Guano*, 1856, Md. Sen. Doc. I., 17. In 1852 the Board of Trade, in a remonstrance to the Senate of Maryland, maintained that this tax would drive the trade from Baltimore to some other port. *Report* for 1852.

[5]Printed in *Hunt*, xxxi. 232-233, and, together with other inspection laws, in *Board of Trade*, Report for 1858, 30-31. See also *Hunt*, xxxiv. 447.

to thirty cents.[5] All guano landed in Baltimore must be inspected and marked according to a fixed scale, with a heavy penalty for failing to have guano inspected and for forging the inspector's mark. The law for the inspection of guano was part of the general system of inspection required in Maryland—inspection was also provided for flour, grain, beef, pork, tobacco, leather, lumber, coal, etc.

In 1854 the market in this country was overstocked with Peruvian guano for the first time. The reason was not the desire fully to supply the demand, but an attempt on the part of the agents, by amassing a large stock of guano here, to secure a better position to claim a renewal of their contract. Guano was imported far beyond the needs of the trade. The effect of this policy was the shifting of the principal place of importation from Baltimore to New York. Baltimore's pre-eminence had been due to its extensive demand for consumption. But the inspection law rendered it impracticable to store guano there. All guano *landed* was subject to the charge of inspection. This seems to have been the principal cause of the diversion of the trade to New York. But the diversion was rendered easy because Baltimore lacked two elements of stability: (1) it possessed little export trade to Peru; and (2) transportation between Peru and Baltimore was mainly by means of transient vessels belonging to other ports. Vessels for the importation of guano were of greater capacity than Baltimore's export trade with South America required.[1] The accumulation of the stock at New York led to the removal of the principal agency there in 1856.[2] And that, in turn, led the agents to favor New York as the point for direct importation. From the fall of 1856 to the end of Barreda's agency, probably the larger part of the imports at Balti-

[1] In 1853, 44 vessels, and, in 1856, 20 vessels entered Baltimore from Peru. Of these, 7 cleared for Peru or Chile, 7 for other South American countries, and 50 for other places.

[2] *Price Current*, August 30, 1856; annual statement, 1856.

more were indirect.[1] This favored local dealers at the expense of consumers, since sales from the agents became to a greater extent limited to sales by the cargo.

The high price of Peruvian guano was not merely a source of complaint; it also led to the introduction of other guanos. Between 1851 and 1860 the guano imported from other places than Peru increased tenfold. In 1848 Patagonian guano was introduced; but it met with little demand. From 1854 to 1858, Colombian, Caribbean or Venezuelan, Mexican, West Indian, Californian, and Navassa were introduced. The search for new deposits was encouraged by the United States. Any citizen discovering unclaimed islands or keys containing deposits of guano was granted possession, and importation from such islands and keys was assimilated to the coasting trade.[2] The most important of the islands subject to this rule was Navassa, the certificate for which was granted to Mr. E. K. Cooper, of Baltimore. A combination of phosphatic with the more powerful Peruvian guano, known as manipulated guano, was found very successful, as well as much cheaper. This expedient allowed Peruvian to be economized, but did not provide a substitute for it.

It has been shown that the inspection law was instrumental in diverting the trade in Peruvian guano from Baltimore to New York during the years 1854 to 1858. The general effect of the law was to favor other guanos than Peruvian. Phosphatic guanos were much more variable in quality and were less known than Peruvian. State in-

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[1]Imports at Baltimore for the calendar years 1856 and 1857, according to the Price Current, were 29,689 tons. Guano inspected, March 1, 1856 to January 29, 1858, 53,694 tons. *Report of Inspector of Guano,* Md. House Doc. I., 1858. This period includes some months, while the agency was still at Baltimore; imports, however, are in tons register, about one-third greater than tons weight.

The decline in importations of Peruvian guano at Baltimore is marked: average, 1851 to '53, 27,551 tons; 1855, 31,316 tons; average, 1856-'57, 14,845 tons; 1858, 8,473 tons.

[2]Act of August 18, 1856. *Hunt,* xli. 476-477, xliv. 784-785.

spection determined their commercial value. It was said that, for the benefit of the inspection law, one dollar more per ton would be paid in Baltimore than elsewhere.[1] But in the case of Peruvian, the inspector himself admitted that the law was useless.[2] The signature of the agent was sufficient guarantee of its quality.

The shipments under the new contract began in 1858. The agents at Baltimore promised to keep the port well supplied with guano. By favoring Baltimore again instead of New York, they merely recognized natural forces; the diversion of the trade to New York had been abnormal. Baltimore still remained the best guano market in the country. But its trade in phosphatic guano had increased much more rapidly than in Peruvian. High price and insufficient supply of Peruvian had combined with the inspection law to promote the trade in other guanos.[3] In view of the decreased demand at Baltimore, the agents imported too largely, and accumulated an increasing stock, which amounted to forty thousand tons at the close of 1861. Upon the outbreak of the war, communication with the south was interrupted; with decreased demand, prices were raised, and thus Maryland demand also became inconsiderable. The war caused the cessation of the trade, because it isolated the section of greatest demand for guano. In 1862 and 1863, the stock of guano collected at Baltimore was shipped to Great Britain and Spain, and in the latter year the agency was closed.[4]

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[1] *Report of the Inspector of Guano*, 1856, p. 11-12.

[2] *Ibid.*, 5, 9. The uniformity in the quality of Peruvian guano is shown by statistics of the inspections. For March 1, 1856, to January 29, 1858, 53,694 tons of Peruvian were inspected; 52,688 tons were of the highest grade (A). *Ibid.*, 1858.

[3] In the *American Farmer*, new series, vol. xiii., for 1857-'58, no less than 38 articles appeared relating to guano. Complaints were still made against the Peruvian monopolists; the quality of Peruvian guano was thought to be declining; the effects of its continued use were considered injurious; and the combination of phosphatic with Peruvian guano was strongly urged.

[4] *Price Current*, annual statements for 1862 and 1863.

With the cessation of the imports of Peruvian guano at Baltimore, the shipments to the United States entirely ceased.[1]

The period before the Civil War was the period of Peruvian guano *par excellence.* The same period is marked by the pre-eminence of Baltimore, both as importing and distributing point for guano. During the seventeen years from the introduction of guano into this country at Baltimore to the Civil War, the imports of Peruvian guano into that city reached over sixteen million dollars in value, and during the decade, from 1852 to 1861, their value was over fourteen million dollars.[2] From the introduction of guano to the Civil War, with the exception of the years 1854 to 1858, Baltimore probably imported more largely than any other port in the country, and even in those years it distributed for immediate consumption more largely than any other city.

The importance of guano to the agricultural interests of Maryland appears clearly from the complaints of the State Agricultural Society against the methods of the Peruvian agents and its demand for more ample supplies, the resolutions of the legislature, and the State inspection laws adopted to regulate the trade.

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[1] *Commercial Relations,* 1862, 692-693; 1863, 631.

[2] Guano is greatly undervalued in the reports on *Commerce and Navigation* until 1867. The article was free, and hence no strong effort was made to secure accuracy. The cost of the guano was placed merely at the expense of loading, from $1.50 to $2 per ton, although the government fixed prices so as to clear about $15 per ton.

CHAPTER III.

FROM THE CLOSE OF THE CIVIL WAR TO THE PRESENT TIME.

I. Trade with the East Coast.

Exports.

Since the Civil War, the trade of Baltimore with Brazil has largely increased, but it has ceased to form the principal part of Baltimore's exports of flour. It is convenient, in describing the changes that have occurred since 1865, to sub-divide the period into three parts: (1) From 1865 to 1874. During this time, the Brazilian trade in flour from Baltimore was increasing both relatively and absolutely. (2) From 1875 to 1884. During this decade, the flour exported to Brazil remained almost constant, while the export to Great Britain was steadily increasing. (3) From 1885 to the present time. During this period, Great Britain has become the principal importer of flour from Baltimore. The flour trade has become primarily European, and not, as before 1885, primarily South American.

(1) From 1865 to 1874. It has been shown, in the previous chapter, that the Civil War acted as a stimulus to the Brazilian trade of Baltimore. The years immediately succeeding the war, however, witnessed a considerable decrease in the trade, due both to poor harvests in Maryland and Virginia and, at times, to insufficient water in the streams. This deficiency in the production of Baltimore flour rendered necessary the substitution of western flour, itself by no means abundant, to satisfy the domestic demand. The trade to Great Britain was thus also diminished—to a much

greater extent, indeed, than the export to Brazil, because the demand was by no means so strong and uniform. During the years 1865 to 1868, the export to Great Britain became insignificant. The export to Brazil, although it declined considerably during these years, maintained well the high relative importance it had secured during the war.[1]

During the latter part of the decade, the export of flour to Brazil increased very rapidly, both relatively and absolutely. The crops proved excellent. Steam was substituted for water power in the larger mills, and thus one element of uncertainty was removed.[2] The export to Great Britain increased over the years 1865 to 1869, but was still unimpor-

[1]Exports of flour from Baltimore, by barrels:

Destination.	Average 1861 to '64.	Average 1865 to '69.	Average 1870 to '74.	Average 1875 to '79.	Average 1880 to '84.	Average 1885 to '87.
Brazil	129,895	115,248	229,171	283,702	243,813	312,843
Uruguay	10,881	3,459	9,382	2,816	....	....
Venezuela	726	....	....	....	....	....
Great Britain	38,475	12,153	41,436	64,389	136,688	1,487,751
West Indies	70,280	79,665	94,235	100,112	56,329	27,291
Other Countries	28,828	21,795	17,560	6,405	13,102	39,392
Total	279,085	232,320	391,784	457,424	449,932	1,867,277

Proportion of total exports of flour from Baltimore destined—

	For Brazil.	For Great Britain.
1861 to 1864	47 per cent.	14 per cent.
1865 to 1869	50 "	5 "
1870 to 1874	58 "	11 "
1875 to 1879	62 "	14 "
1880 to 1884	54 "	30 "
1885 to 1887	17 "	80 "

[2]*Price Current*, annual statement for 1872; *cf.* statement for 1853. The compulsory feature of the inspection law came to an end in 1872. For some time after this, western flour continued to be inspected, but not the product of city mills, indicating that at best the system was felt to be unnecessary by city millers, whose brand guaranteed the quality. Note the complaint of the Board of Trade against the only remaining part of the system, the inspection of tobacco, in 1880: "State inspections are not only useless, but mischievous." *Report*, 1880, pp. 18-19.

tant. The export to Uruguay had almost ceased; the irregularity of the shipments indicate that the demand of Uruguay only appeared during years of scarcity in Argentina.[1] Baltimore's exports to Venezuela came to an end during the war.

The decade from 1865 to 1874 is marked by the very large increase in Baltimore's export of flour to Brazil. That branch of the flour trade had become more firmly established, and the greater steadiness in its volume was still clearly marked. At the close of the period, the export to Brazil formed seventy per cent. of Baltimore's total exports of flour.

(2) From 1875 to 1884. This was a period of transition in the history of Baltimore's flour trade. During this decade, Brazil remained by far the largest importer of flour from Baltimore. From 1875 to 1879 the proportion of the exports of flour destined for Brazil increased, and during the next five years still formed more than one-half of the total exports. During the decade as a whole, the export to Brazil increased over the preceding decade; nevertheless, in 1884, the quantity of flour exported was considerably less than in 1875; altogether, the years 1875 to 1884 may be considered a stationary period in the Brazilian trade.

A marked feature of the period was the rapid increase in the flour exported to Great Britain. In 1874 the Baltimore and Ohio secured its Chicago connection. From that time Baltimore's receipts of western flour and its exports to Great Britain largely increased. In 1877 the system of differentials was instituted.[2] The effect of the system at first

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[1]Similarly Chilean flour has almost entirely taken the place of American on the west coast of South America since about 1830, and completely since the Civil War.

[2]By the terms of this system, adopted as a compromise between the demand of New York to have rates based upon cost, and of Baltimore to have rates based upon distance, Baltimore is allowed a rate of 3 cents per 100 pounds less than New York. The differential is of greatest importance in the case of goods of little value in

seems to have been advantageous to Baltimore as a shipping point for flour. After 1877 the exports to Great Britain from that city increased considerably, and were lowest in the year 1881, in which the system was temporarily abrogated. In 1875 the proportion of the exports of flour from Baltimore destined for Great Britain was nine per cent.; in 1884 it was forty per cent. This rapid increase had occurred while the export to Brazil remained stationary. In 1875 the export to Great Britain was only equal to fourteen per cent. of the export to Brazil; in 1884 it was eighty per cent. of export to Brazil. The relative importance of Great Britain as an importer of flour from Baltimore had thus increased to a very remarkable degree.[1]

(3) From 1885 to the present time. The year 1885 marks a fundamental change in the character of Baltimore's export trade in flour. From 1859 to 1884, Brazil was the largest importer of flour from Baltimore; since that time, Great Britain has taken the largest quantity. Before 1885, Baltimore's trade was principally South American. From that year it has been principally European. From 1884 to 1887 the increase in the export of flour from Baltimore to Great Britain was remarkable. Comparing the fiscal years 1887 and 1888 with 1883 and 1884, we find that the exports of flour from Baltimore had increased enormously, while the total exports of flour to Great Britain and the total exports of flour from

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proportion to weight. Thus, at present, it attracts grain rather than flour to Baltimore for shipment abroad. The general effect of the system on the commerce of Baltimore deserves careful study. It would seem that at first the system secured a certainty in the rate to Baltimore that enabled the beginning of a foreign trade through that port to spring up.

[1]A rapid decline in the flour trade with the West Indies occurred during the latter part of this period. The decline was to some extent the result of the increased importance of western flour during this period, but more largely the result of the loss of the sugar trade. It is to be noted that the total exports decreased much more largely than the export of flour. The relative advantage of Baltimore as a flour market thus clearly appears.

New York had remained almost constant.[1] This relative increase in Baltimore's exports was due almost entirely to the increase in its trade with Great Britain. That element in its flour trade had increased from forty per cent. of the whole in 1884 (calendar year), to seventy-two per cent. in 1885, and eighty-five per cent. in 1887.[2]

This is the element directly affected by conditions of shipment from the west. During these years, the movement of western flour to Europe by way of Baltimore attracted general attention.[3] The phenomenon seems due mainly to the railroad war of 1884 and 1885. By the time that war broke out, Baltimore had secured sufficient trade in western flour to enable it to compete strongly for an increased share in the shipments to Europe. The differential allowed still gave New York a slight advantage over Baltimore. The reduced rates offered by the Baltimore and Ohio during the rate war gave Baltimore a much greater differential.[4]

The increase in the shipment to Europe has by no means decreased the export to Brazil. The European trade is

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[1]Exports of flour, with percentages, taking the figures for 1883 and 1884 as base:

Fiscal Years.	Total to Great Britain.			Total from Baltimore.			Total from New York.		
	Barrels.	Per Ct.	Value.	Barrels.	Per Ct.	Value.	Barrels.	Per Ct.	Value.
1883, 1884...	11.301,272	100	67,016,900	875,115	100	5,010,495	8,426,752	100	47,691,001
1885, 1886...	11,722,220	104	57,697,911	1,950,357	223	9,695,757	7,399,967	88	34.268,754
1887, 1888...	15,702,551	131	72,726,141	5,554,838	635	27,717,702	8,401,614	100	35,709,723

[2]Exports of flour from Baltimore to Holland and Bremen show a similar increase:

	1884.	1887.
Holland	5,898 barrels.	161,676 barrels.
Bremen	5,365 barrels.	14,046 barrels.

[3]Baltimore *Journal of Commerce*, January 8, 1887. The increase of through shipments from the west to Europe was a ground of complaint. Baltimore *Corn and Flour Exchange*, Report, 1885, p. 11; 1886, p. 13, etc.

[4]*Corn and Flour Exchange*, Report, 1885, p. 12; 1886, p. 14.

concerned with western flour; the South American, with Baltimore flour. These two branches of the export trade in flour are thus largely independent. The export of flour to Brazil has not only held its own, but has increased very considerably. In absolute quantity it increased more largely from 1884 to 1893 than from 1864 to 1874, the decade marked by its most rapid relative increase; and the export of flour to Brazil has increased much more rapidly from Baltimore than from the country as a whole.[1] The trade in Baltimore flour has remained unchanged; Brazil receives a larger amount of that description, both absolutely and relatively, than ever before. A new trade, in western flour for Europe, of still greater proportions, has been added.

The export of flour to other South American countries than Brazil has become inconsiderable. Flour is still exported regularly to Colombia from Baltimore, but in smaller quantity than bituminous coal.[2] Much larger quantities of flour were shipped to British Guiana until the last few years. In 1893 Baltimore exported more goods to British Guiana than to Argentina, Chile, Colombia, or Venezuela, to all of which the United States exported more extensively than to British Guiana. Two facts are to be noted in regard to the exports to that country. First, flour constituted a larger element than in the export trade with these other countries;

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[1]Export of flour to Brazil from Baltimore, the quantity for 1884 serving as base: in 1887, 173 per cent.; in the fiscal year 1893, 190 per cent. From the United States, average fiscal years 1884 and 1885 serving as base: average 1887 and 1888, 101 per cent.; 1893, 127 per cent.

[2]Baltimore's share of the domestic exports to Colombia in 1892 was less than 1 per cent., and in 1893 less than ½ per cent. Of domestic exports to Colombia—

	From Baltimore		From the United States	
	1892.	1893.	1892.	1893.
Flour	6 per ct.	4 per ct.	12 per ct.	11 per ct.
Bituminous Coal	..	40 "	2 "	3 "
Carried in Steamers	..	..	90 "	91 "

and, second, a smaller proportion was carried in steamers.[1] Yet even to British Guiana Baltimore sent only five per cent. of the total exports from this country in 1892, and three per cent. in 1893. The loss of the sugar trade after 1891 finally caused the loss of Baltimore's export trade to that country.

Thus far our main inquiry has been the destination of Baltimore's exports of flour. It is now necessary to consider more carefully the trade with Brazil, its importance relative to the general trade with South America, and the shares in that trade which various ports in this country have secured.

A very marked characteristic of Baltimore's export trade since the Civil War has been the decline of the trade with all South American countries except Brazil. A comparison between the fiscal years 1859 and 1893 shows this decline.

Domestic Exports.	1859.	1893.
To Brazil	1,060,107	2,162,538
Other South American Countries	1,011,174	76,463
Total	2,071,281	2,239,001

From this table it appears that Baltimore has lost its export trade with all South American countries except Brazil. In 1859, Brazil received only fifty-one per cent. of the total exports; in 1893, ninety-seven per cent. The exports to Brazil have more than doubled; the exports to other South American countries have fallen to eight per cent. of their former amount. The table below shows the progress of this movement from 1869 to 1896:

[1]Proportion of flour and of goods carried in steamers to total domestic exports to British Guiana:

	From Baltimore		From United States	
	1892.	1893.	1892.	1893.
Proportion of Flour	71 per ct.	60 per ct.	39 per ct.	36 per ct.
" in Steamers	.. ..	.. ..	11 "	21 "

Exports, of domestic and foreign goods, from Baltimore.

Destination.	Average 1869-'70.	Average 1871 to '75.	Average 1876 to '80.	Average 1881 to '85.	Average 1886 to '90.	Average 1891 to '95.	1896.
Argentina—							
Domestic......	146,085	82,327	....	....	71,029	1,716	6,500
Foreign	7,618	1,641	....	....	....	....	....
Brazil—							
Domestic......	1,291,197	2,106,757	2,417,397	1,751,998	2,228,604	2,838,069	2,751,884
Foreign	....	66	536	6	485	351	....
British Guiana—							
Domestic......	....	353,290	583,740	438,256	160,604	46,572	....
Foreign	....	4,913	13,931	6,198	2,151	486	....
Chile—							
Domestic......	13,600	5,698	....	....	....	....	....
Foreign........	18,346	....	....	....	....	....	....
Colombia—							
Domestic......	29,786	57,130	71,880	56,570	46,270	28,218	34,099
Foreign.......	874	1,367	2,086	1,523	1,261	1,147	505
Uruguay—							
Domestic......	148,300	154,075	51,352	14,977	2,132	3,312	7,810
Foreign.......	41,922	1,212	1,636	314	....	....	....
Venezuela—							
Domestic......	306	95	385	....	498	1,825	1,084
Total—							
Domestic...	1,629,274	2,759,372	3,124,754	2,261,801	2,509,137	2,919,712	2,801,377
Foreign ..	68,760	9,199	18,189	8,041	3,897	1,984	505

It thus appears that the share of Brazil in the South American trade of Baltimore has enormously increased. The content of the export trade to Brazil must now be considered. Flour has remained the principal export. The bulk of the flour exported to Brazil from Baltimore has consisted of the extra grades of city production especially manufactured to meet the requirements of the Brazilian market. During the years of scarcity of city flour, from 1865 to 1868, Richmond and even western flour were to some extent substituted for the Baltimore brands.[1] Baltimore flour soon regained its former position; but for some years later Richmond flour remained a regular constituent of the exports from Baltimore. Between 1869 and 1878, the amount of this Richmond flour exported to Brazil through Baltimore in transit increased from about twenty-five thousand barrels to sixty-four thou-

[1] *Price Current*, annual statement for 1868.

sand barrels. In the latter year, it formed seventeen per cent. of the exports from Baltimore. The figures showing the descriptions of flour imported into Brazil in 1885 prove that the Baltimore brands were the most favored.[1] Fifty-seven per cent. of the total imports, and seventy-four per cent. of the flour imported from the United States, consisted of Baltimore flour. Argentine is the chief rival of Baltimore flour;[2] yet the element of danger it involves has perhaps been overrated. The principal demand in Brazil has been on the part of the wealthier classes, to whom cost is a less important consideration than quality. It is doubtful whether Argentine flour can compete with the better grades of Baltimore flour for years to come. Baltimore flour is the description most largely taken by Brazil; and Brazil is likewise by far the largest foreign consumer of Baltimore flour.

In the exportation of flour to Brazil, Baltimore has been somewhat less successful than in its manufacture. The four chief exporting points have been New York, Baltimore, Richmond, and Newport News.

The importance of Richmond and Newport News, as exporting points to Brazil, has been lost. In 1871, Richmond was second only to Baltimore in its exportation of flour to Brazil.[3] The period of its greatest importance extends from 1873 to 1885; after 1885 the decline in its trade was steady until 1893; since that time the trade has become insignifi-

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[1]Imports of flour at Brazil during 1885, from *Commercial Relations*, 1886, p. 1072.

Baltimore	227,624 barrels.
Richmond	44,875 barrels.
Western Interior	35,126 barrels.
River Plata	70,101 barrels.
Other countries	19,913 barrels.
Total	397,639 barrels.

[2]*Journal of Commerce*, annual statement for 1879, December 22, 1894.

[3]*Price Current*, annual statement for 1871.

cant. Richmond has possessed the advantage of an article well suited to the Brazilian market, but it has lacked one great essential to stability—demand for a return cargo.

Newport News,[1] like Richmond, has been a good market for flour, but not for coffee. Unlike Richmond, however, it is situated advantageously for steam transportation. The triangular voyage has met its needs. Regular steamers between Brazil and New York stopped at Newport News for a cargo of flour on their return voyage. Richmond has only possessed sailing vessels in its trade with Brazil; they seem unfitted for the triangular voyage. Newport News secured the larger part of the transhipment trade in Richmond flour which had previously passed through Baltimore.[2] Exports from Newport News declined from 1883 to 1888, and increased again from 1889 to 1891; since 1892 and the failure of the United States and Brazil Mail Steamship Company, they have become inconsiderable.[3] American steamers have made the triangular voyage between New York, Newport News, and Brazil, and foreign steamers the voyage between New York, Baltimore, and Brazil.[4]

Through the entire period, New York and Baltimore have been the principal points of exportation to Brazil. Their share of the trade decreased until 1881 to 1885, but since then has again increased in a very marked way. From 1881 to 1885 the combined share of New York and Baltimore was seventy-one per cent.; from 1891 to 1895, it was eighty-seven per cent.; and in 1896, ninety-four per cent. The

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[1] Instituted a port of entry, and joined with Yorktown, 1882.

[2] *Journal of Commerce,* annual statement for 1883.

[3] Average, 1883-'84, $994,599; 1885 to '88, $374,580; 1889-'90, $612,215; 1891, $916,898; 1892, $445,951; 1893-'95, $702.

[4] American lines have been heavily subsidized to carry the mails. Quick communication has been the essential consideration. Foreign vessels have been to a much greater degree subject to purely commercial considerations; these vessels seek Baltimore rather than Newport News as shipping point for flour. See *Handbook of the American Republics,* No. 1, 206-209, 242; Baltimore *Board of Trade,* Report for 1893, 45.

share of New York in the total exports has gradually increased during the period, and the share of Baltimore has slightly decreased.[1] Yet no concentration of the export trade at New York has taken place and none promises to take place. In the case of flour, Baltimore is probably the leading port, and its lead does not seem to be lessening.[2]

The increasing share which New York has gained in the export trade with Brazil seems closely connected with two other movements which have been concurrent with that. (1) There has been a marked increase in the proportion of mixed cargoes to total exports; or, to state the same fact in another way, the proportion of flour to total exports has declined. And (2) steamers have been extensively employed in the trade.[3]

Statistics show that the proportion of flour to total domestic exports has steadily decreased. Before the Civil

[1]Domestic exports to Brazil:

Ports.	1869-'70	1871-'75	1876-'80	1881-'85	1886-'90	1891-'95	1896
New York	3,443,716	3,267,162	3,704,612	4,415,402	4,799,515	9,101,143	10,639,335
Baltimore	1,291,197	2,106,757	2,417,397	1,751,998	2,228,604	2,838,069	2,751,884
Richmond	494,205	1,110,385	1,329,959	1,330,316	404,136	104,151	....
Newport News	....	....	....	794,866	465,469	272,991	....
Other Ports	580,345	335,940	541,353	354,761	476,974	1,422,827	831,715
Total	5,809,463	6,820,244	7,993,321	8,647,343	8,374,698	13,739,181	14,222,934

The percentage from New York and Baltimore has been as follows:

	1869-'70	1871-'75	1876-'80	1881-'85	1886-'90	1891-'95	1896
From New York	59	48	46	51	57	66	75
" Baltimore	22	21	30	20	26	21	19
" Other Ports	19	31	24	29	17	13	6
Total	100	100	100	100	100	100	100

[2]In 1888, Baltimore shipped 58 per cent. of the flour exported from this country to Brazil; in 1892, 37 per cent.; in 1893, 50 per cent.; and in 1896, 47 per cent.

[3]The general conclusion to which our study leads is that the concentration of trade, steam transportation, and the mixed cargo have been concurrent phenomena. The point will be considered more fully when we come to treat of the coffee trade.

War, flour formed about sixty per cent. of the exports to Brazil, and in 1895 only eighteen per cent.[1] New York is peculiarly fitted for the shipment and the distribution of mixed cargoes, and Baltimore is not. Statistics show that the proportion of flour to total exports is much higher in the case of Baltimore than the United States as a whole. This comparison is really one between Baltimore and New York; for New York possesses over ninety per cent. of the exports to Brazil, exclusive of those from Baltimore. During the fiscal years 1892 and 1893, flour constituted seventy-six per cent. of the exports from Baltimore, against only twenty-nine per cent. from all other ports. The contrast between the mixed cargo and the staple exports may also be brought out by comparing the proportion of flour, bacon, and lard, with total exports; in the case of Baltimore, the proportion for 1892 and 1893 was ninety-six per cent., while for all other ports it was twenty-nine per cent.[2] New York is peculiarly suited for the shipment of a mixed cargo; and steam transportation is peculiarly suited to carry a mixed cargo.[3]

The tables of the movement of vessels, given below, indicate the importance of steam transportation from New York and from Baltimore. From these figures, it would appear that in the period from 1891 to 1895 the proportion of steam to total tonnage cleared became greater in the case of Baltimore than New York. Sixty-one per cent. of the tonnage cleared

[1]Proportion of flour to total domestic exports to Brazil for the United States:

Fiscal Years.	Flour. Per Cent.	Fiscal Years.	Flour. Per Cent.	Fiscal Years.	Flour. Per Cent.
1848........	63	1869, 1870....	52	1881 to 1885..	48
1859........	59	1871 to 1875..	57	1886 to 1890..	38
1863, 1864...	66	1876 to 1880..	50	1891 to 1895..	27

[2]In 1892 and 1893 Baltimore shipped 55 per cent. of the bacon and 37 per cent. of the lard exported to Brazil.

[3]Note the lists of exports on steamers of the United States and Brazil Mail Steamship Company. Curtis: *Trade and Transportation with Spanish America*, 17-20. The relative advantage of New York over Baltimore as a distributing centre appears in the monopoly of the re-export and transhipment trade it has secured.

from New York, and sixty-three per cent. of the tonnage cleared from Baltimore, was steam. This is only an apparent advantage in favor of Baltimore, however, due to the system of triangular voyages. Of the total domestic exports from the United States, in 1892 and 1893, sixty-six per cent. was carried in steamers; from Baltimore, fifty per cent. Yet this extensive use of steamers seems remarkable in the case of Baltimore.[1]

Vessels Clearing New York for Brazil.

Fiscal Years.	Steamers.				Sailing Vessels.			
	American.		Foreign.		American.		Foreign.	
	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.
1871 to 1875.	54	129,795	2	2,860	357	75,332	372	89,438
1876 to 1880.	28	91,757	27	34,576	368	116,690	269	70,292
1881 to 1885.	30	72,926	83	104,443	266	98,721	376	99,813
1886 to 1890.	7	13,740	122	108,229	127	62,878	262	89,920
1891 to 1895.	23	55,279	279	332,843	168	116,756	276	126,573

Vessels Clearing Baltimore for Brazil.

Fiscal Years.	Steamers.				Sailing Vessels.			
	American.		Foreign.		American.		Foreign.	
	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.
1871 to 1875.	......	....	2	1,928	283	83,720	131	36,367
1876 to 1880.	......	....	4	5,010	313	108,479	137	41,113
1881 to 1885.	1	2,014	37	43,297	207	80,227	70	24,320
1886 to 1890.	......	....	84	106,842	205	98,725	71	69,216
1891 to 1895.	2	3,451	118	166,650	145	89,620	28	9,280

There is very little real competition between steamers and sailing vessels from Baltimore to Brazil. The rates of the steamers, which fluctuate to a considerable extent, are usually slightly above the rates by sail. The steamers

[1]In the case of imports, 93 per cent. was the proportion for the United States against only 22 per cent. for Baltimore.

carry flour, bacon, and lard on New York account. They come to Baltimore merely because it is less expensive to purchase these commodities there than in New York, where they ship the rest of their cargo. For local shipments, steamers are unable to compete; they only secure what sailing vessels are unable to carry. The reason for this total absence of competition is the close relation that exists between the owners of Baltimore sailing vessels and the coffee importers, who are also the shippers of flour. A, a vessel owner, promises to ship half a cargo of flour and consign it to B's branch house in Brazil, if B will ship the other half cargo. By this means the steamer rate may even fall below that by sail without diverting any considerable traffic. The local shipments by sail form the most secure part of Baltimore's flour trade.

Steamers have been introduced into the export trade with Brazil, but to a less extent than in the import trade. From 1891 to 1895, ninety-three per cent. of the imports against only sixty-eight per cent. of the exports, was carried by steamers. Not only do sailing vessels carry a greater proportion of exports than of imports, but Baltimore has secured regular steam transportation to Brazil. New York, as we shall see later, has greater demand for coffee than Baltimore; it is likewise the better market for a mixed cargo. Baltimore, on the other hand, is the better market for the purchase of flour and provisions. Europe proves the best market for dry goods. The result has been the springing up of two triangular voyages: between Brazil, New York, and Baltimore, and between Brazil, New York, and Europe. It is the former route that has given Baltimore regular steam transportation to Brazil since 1885. The fact that these triangular voyages are but the recognition of industrial conditions guarantees their stability.

We find the slight relative decline in the exports from Baltimore to be due to the increase of mixed cargoes and steam transportation; the limited extent to which this has gone, in comparison with the partial concentration of the

coffee trade, seems due to the fact that these two movements have been less pronounced in the case of exports than imports.

The exports of flour from Baltimore to Brazil have declined neither absolutely nor relatively.[1] Baltimore is the leading port in the United States for the manufacture and exportation of flour to Brazil. The size of the trade has been sufficient to secure regular steam transportation, although the chief dependence of the trade lies in the Baltimore sailing vessels. The trade gives every promise, not only of preservation, but of increase in the future. The flour trade to Brazil is the most important branch still existing of Baltimore's South American trade.[2]

Imports.

The thirty years since the close of the Civil War are very important in the history of commerce for the radical changes they have brought about. The effects of the period on the South American trade of Baltimore are marked. It is one of the principal aims of this monograph to trace the connection between the changes observable in Baltimore's South American trade and the general commercial changes of this period.

One noticeable feature of the period has been the disappearance of smaller lines of trade and their aggregation at some one point. Thus, in the South American trade, Baltimore has lost the smaller lines of importation which it possessed before the Civil War, and its share has come to consist

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[1]The feeling in Baltimore has been widespread that the abrogation of the reciprocity treaty meant the decline of the city's flour trade with Brazil. *Board of Trade*, 1896, 10, 46; *Journal of Commerce*, December 22, 1894. That fear seems ungrounded. No clearly marked effect of the treaty on the trade of Baltimore can be discerned. Worthington C. Ford concludes that the general effect of the treaty was slight. *Commerce and Navigation*, 1893, lxxviii.

[2]The special reasons for the prosperity of this branch of the trade will be considered in the Conclusion. Comparison with the coffee trade during the period will be found necessary.

more and more largely in its imports from Brazil. The movement is shown in the accompanying table:[1]

Imports into Baltimore from South America.

Countries.	Average 1869-'70.	Average 1871 to '75.	Average 1876 to '80.	Average 1881 to '85.	Average 1886 to '90.	Average 1891 to '95.	1896.
Argentina	135,830	39,828	....	592	....	1,478	7,215
Brazil	5.422,106	9,721,329	9,835,888	4,679,255	3,638,593	4,367,965	3,291,508
Chile	232,122	5,694	....	98,685	122,483	166,206	86,325
Colombia	35,762	46,639	105,696	44,356	36,000	22,694	54,415
British Guiana	....	617,637	....	384,041	1,279	62,246	....
Peru	304,609	324,214	136,811	75,103	16,631	....	....
Uruguay	95,347	108,856	166,887	94.733	37,131	37,362	25,705
Venezuela	9,897	9,884	36,657	61,106	36,097	12,085	9,165
Total	6,235,673	10,874,081	10,281,939	5,437,871	3,888,214	4,670,036	3,474,333

The Brazilian trade may be said to constitute practically the whole of Baltimore's South American trade, except the imports from Chile. The period has witnessed the decline of the imports of sugar from British Guiana, hides from Argentina and Uruguay, and guano from Peru. Since the end of Baltimore's importation of Venezuelan coffee, imports from Venezuela have become inconsiderable. Baltimore still imports small quantities of cocoanuts from Colombia, guano from Venezuela, bone dust from Uruguay and Argentina, and nitrate of soda from Chile. Baltimore's demand for these articles is not sufficiently extensive to justify large imports of them; and Baltimore seems entirely unfitted for the importation of a general cargo.[2] With no South American country except Brazil has Baltimore close commercial relations; as a place for the importation of South American

[1]The proportion of South American imports at Baltimore consisting in imports from Brazil has been as follows: in 1869 and 1870, 87 per cent.; from 1871 to 1875, 89 per cent.; 1876 to 1880, 96 per cent.; 1881 to 1885, 86 per cent.; 1886 to 1890, 94 per cent.; 1891 to 1895, 94 per cent.; 1896, 95 per cent.

[2]Of Baltimore's imports from these countries, in the fiscal years 1892 and 1893, 92 per cent. consisted in the commodity mentioned as the principal import from each country.

products, Baltimore's rank depends entirely upon the extent of its coffee trade with Brazil.

The imports of Baltimore from Brazil, which have just been shown to comprise nearly all its imports from South America, in turn consist almost wholly in coffee. Total imports into Baltimore from Brazil and total imports of coffee into Baltimore have been almost identical throughout the period under consideration; the variation has never been so great as 1.4 per cent. In the fiscal years 1888, 1892, and 1893, the proportion of coffee to total imports from Brazil was in each case ninety-nine per cent., and the proportion of coffee from Brazil to total imports of coffee was even greater.[1] The practical identity established between Baltimore's imports of coffee and its imports from Brazil brings out two distinct characteristics of the trade which appeared in the preceding period, but reached their fullest development in this.

(1) Baltimore receives no mixed cargoes among its imports from Brazil. In 1895, besides coffee, the imports from Brazil into the United States were composed of India rubber, sugar, hides, cocoa, fruit, and hair.[2] Baltimore imported none of these articles at all, except fruits and hair, and those only to a small amount; it possesses no active demand for any Brazilian product except coffee. New York, on the contrary, imports most largely of each of the subsidiary imports from Brazil.

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[1]Imports into Baltimore:

	(1)	(2)	(3)	(4)	(5)	Proportion of	
Fiscal Years.	Imports from Brazil.	Coffee from Brazil.		Total Coffee Imported.		(3) to (1.)	(2) to (4.)
	Value.	Pounds.	Value.	Pounds.	Value.	Per Ct.	Per Ct.
1888.....	2,479,089	17,939,934	2,468,528	17,968,632	2,473,067	99.13	99.84
1892.....	3,606,993	17.765,074	3,604,960	17,793,448	3,608,610	99.95	99.84
1893.....	3,909,133	29,135,878	3,906,183	29,216,530	3,924,169	99.92	99.72

[2]Coffee, $60,316,677; India rubber, $13,195,255; sugar, $2,701,287; hides, $1,617,205; cocoa, $374,186; fruits (other free), $181,777; hair, $101,009; miscellaneous, $344,080; total, $78,831,476.

(2) Baltimore receives no coffee from any country except Brazil. Imports from Venezuela are concentrated almost entirely at New York; they come by steamer, and are largely transhipped to Europe from New York.

An inquiry into the distribution of the trade with Brazil through the period is now before us. The general progress of the trade will be shown, with its effects on the share of the trade which Baltimore has secured.

The question at issue during the greater part of the period before the Civil War was whether the seaboard or the Gulf ports possessed the better situation for the importation of coffee. Toward the close of the period, that question seems to have been answered in favor of the seaboard; and since that time the main question has been as to the distribution of the trade among the seaboard cities. The war gave a temporary monopoly of the trade to New York; but at its close Baltimore again presented its claims for a greater share of the coffee destined for the interior. Its three great advantages over New York were shown to be: (1) greater proximity to the west; (2) cheaper expenses of handling; and (3) an excellent return cargo to Brazil.[1] Western sale has formed the principal part of the demand for coffee. Hence transportation between the west and the seaboard is a far more important element in the coffee, than the flour, trade with Brazil.

The general tendency has been toward the concentration of the import trade with Brazil at New York. The table presented shows the proportion of the total imports from Brazil received at Baltimore, New York, and New Orleans during successive terms of years:

Fiscal Years.	Baltimore. Per Cent.	New York. Per Cent.	New Orleans. Per Cent.	Other Ports. Per Cent.
1869–'70.......	22	62	8	8
1871 to '75....	26	54	13	7
1876 to '80....	22	63	8	7
1881 to '85....	10	77	6	7
1886 to '90....	7	84	6	3
1891 to '95....	5	88	5	2
1896...........	5	90	4	1

[1] *Price Current*, annual statements for 1865, 1866, and 1867; see also statement for 1858.

This table shows that the trade of Baltimore secured a relative increase up to the period from 1871 to 1875; the year 1876 gave even a more favorable showing. But since that time, the share of New York has steadily increased, and the share, not only of Baltimore, but of New Orleans and other ports, has as steadily decreased. The period which saw the beginning of New York's pre-eminence marks the first considerable use of steam transportation between the United States and Brazil. The period of Baltimore's greatest success was the period when the proportion of coffee to the total imports from Brazil was largest. The conclusion is scarcely to be resisted, that New York is better fitted for steam transportation and for mixed cargoes.

Concentration of the trade, and the increase of steam transportation by water, have been concurrent and closely related phenomena. The table given shows the progress of steam transportation between Brazil and the United States:[1]

Steamers Entering the United States from Brazil.

Fiscal Years.	New York.				Baltimore.			
	American.		Foreign.		American.		Foreign.	
	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.
1871 to 1875.	59	140,184	27	36,452	......	....	3	3,088
1876 to 1880.	28	90,938	134	231,433	......	....	13	17,993
1881 to 1885.	43	97,043	380	533,163	1	862	21	24,926
1886 to 1890.	74	144,333	517	572,949	......	... ...	17	17,131
1891 to 1895.	58	135,270	642	830,966	......	....	12	14,403

The table shows a marked increase in steam tonnage entering New York from 1876 to 1880. That was the period of the first regular use of steamers in the trade. The preceding five years had been mainly a period of experiment. It is

[1]Only steamers with cargo are included. Two steamers entered New York, and three entered Baltimore in ballast during this period.

also noticeable that New York, as against Baltimore, has had a practical monopoly of the steam tonnage entering from Brazil. But while Baltimore has failed to secure steam transportation from Brazil, it has secured steam transportation to Brazil.[1]

Attention has also been called to the effect of the importation of mixed cargoes, as tending to increase the trade of New York. The table presented shows the proportion of coffee to total imports from Brazil. Baltimore, as has already been shown, receives practically nothing but coffee from that country.

Fiscal Years.	Proportion of Coffee to Total Imports. Per Cent.
1869–1870	75
1871 to 1875	82
1876 to 1880	82
1881 to 1885	63
1886 to 1890	70
1891 to 1895	77
1896	76

The highest proportion of coffee, it will be noted, was in the decade from 1871 to 1880, the period of Baltimore's largest relative imports. The increase in general imports since then has probably been promoted by steam transportation. It is much more essential to have regular and quick transportation for various imports than for imports of one kind. The introduction of various lines of Brazilian products has been rendered easier, because steamers, requiring large cargoes, find it more difficult to secure full cargoes of one commodity, and more profitable to carry other goods, even at

[1]Why Baltimore has failed to secure steam transportation from Brazil will be inquired below.

The proportion of steam to total tonnage entering New York and Baltimore has been as follows:

	New York. Per Cent.	Baltimore. Per Cent.
1871 to '75	39	2
1876 to '80	47	10
1881 to '85	56	22
1886 to '90	59	18
1891 to '95	84	16
1896	90	21

cheaper rates, than take only a partial cargo. And New York, by virtue of its position as the principal distributing centre on the seaboard, is a market peculiarly advantageous for a mixed cargo. The advantage which New York thus gains is very considerable. In 1895, the tonnage entering Baltimore was 9.9 per cent. that entering New York, but its imports equaled only 5.9 per cent. those of New York in value. The vessels entering Baltimore that year carried cargoes equal only to sixty-seven per cent. of their capacity.[1] A loss of economy is present in Baltimore's trade because of the lack of demand for other commodities than coffee.

One important reason why Baltimore receives few imports by steamer is because it is unfitted for the importation of a mixed cargo, and cannot thus guarantee a full cargo, as New York can. A still more important reason results from the heavy initial cost of steam transportation. When steamers were first introduced, they naturally selected New York as their port. It has been easier to increase New York's transportation facilities than to provide similar facilities at Baltimore. The relative advantages that Baltimore has to offer have not proved sufficient to attract the capital necessary to the establishment of a rival line of steamers to run regularly between Brazil and Baltimore; and regularity would be necessary to compete successfully with New York. It has been much easier to increase the receipts by steamer at New York, than to build up a new line of trade by steamer with Baltimore. A third reason is, that the need of transportation for flour from Baltimore to Brazil is much greater than the need of transportation for coffee to Baltimore. On this account, a triangular voyage between Brazil, this country, and Europe, which is so well suited to the conditions of the New York market, is not at all suited to the character of the Baltimore market.

The general movement of the coffee trade has been traced.

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[1] A result obtained by dividing the tons of coffee received by the tonnage of the vessels entering from Brazil.

A study of its temporary fluctuations, which follows, is not unimportant.[1]

The effect of the Civil War on the coffee trade of Baltimore has been shown. The year 1865 brought no improvement. But in 1867 more coffee was imported than ever before in the history of the port; and from 1867 to 1871 the imports increased still further.

During 1870 and 1871 there was also a marked relative increase in Baltimore's imports of coffee. The cause was merely temporary in its operation: a quarantine charge was imposed at New York which was considered exorbitant, and New York importers ordered their vessels to Baltimore until the charge was removed, when the trade reverted to New York.[2] Although of no permanent importance, the incident illustrates the effect of local port charges on the localization of a trade.

The tariff of 1872, admitting coffee free of duty, exerted no appreciable effect on the trade of Baltimore. But in 1874 an event occurred of much more immediate interest. A line of British steamers, known as the King Line, was established, to make triangular voyages from Brazil to Baltimore, then to Liverpool, and thence to Brazil again. The line continued in operation during 1875 and 1876. The result was that the Baltimore market became overstocked with

[1]The calculation given, showing the proportion between the coffee imported into Baltimore, and the coffee imported into the United States from Brazil, exhibits these temporary fluctuations, from 1869 to 1896:

Fiscal Years.	Per Cent.	Fiscal Years.	Per Cent.	Fiscal Years.	Per Cent.
1869	23	1879	25	1888	7
1870	35	1880	24	1889	13
1871	36	1881	23	1890	8
1872	38	1882	16	1891	9
1873	30	1883	15	1892	4
1874	28	1884	11	1893	7
1875	35	1885	18	1894	8
1876	38	1886	15	1895	7
1877	31	1887	9	1896	7
1878	25				

[2]*Price Current*, annual statements for 1870, 1871, and 1872.

coffee; the experiment proved a failure.[1] This is the only attempt that has been made to carry on a triangular voyage between Brazil, Baltimore, and Europe. It failed: (1) because Baltimore is a better market for flour than coffee; vessels exporting flour to Brazil are ample for the importation of coffee; and (2) because the steamers could not obtain a full cargo by carrying a mixed cargo, an expedient open to vessels for New York.

The effect of the system of differentials on the coffee trade of Baltimore is difficult to estimate. Since the Baltimore and Ohio secured connection with Chicago,[2] railroad war and the system of differentials have alternated, so that the latter cannot be compared with a normal condition of affairs in which it does not obtain. We should expect the system to prove in no way advantageous to Baltimore's coffee trade, because the differential varies with bulk alone, and is thus relatively least in the case of valuable goods, such as coffee. The facts seem to bear out our expectation. Assuming as normal the share of coffee received at Baltimore during the fiscal year 1877, we observe a decrease the following year. Another decrease, however, occurred during the fiscal year 1882, which included part of the rate war of 1881. But in this war, the New York Central, not the Baltimore and Ohio, was the active party.[3] It is possible to speak

[1]Baltimore *Journal of Commerce and Price Current*, annual statements for 1874, 1875, 1876. In 1875 the largest importation of coffee in the history of Baltimore took place.

[2]In 1874. In 1875, a war was threatening, which broke out in 1876; in 1877 the system of differentials was adopted as a compromise to end that war. Other wars occurred in 1881 and 1884-'85, at the close of both of which the system was re-established. Hadley: *Railroad Transportation*, 94-99. See *Journal of Commerce*, March 25, 1882.

[3]The shipments west from Baltimore, over the Baltimore and Ohio, fell considerably in 1881, as appears in the table. In 1876 and 1885, the Baltimore and Ohio was a more active combatant.

Calendar Years.	Bags.	Calendar Years.	Bags.	Calendar Years.	Bags.
1878....	287,417	1883....	220,550	1887....	81,427
1880....	268,935	1884....	254,373	1888....	69,806
1881....	145,526	1885 ...	294,473	1889....	98,081
1882....	229,915	1886....	193,432	1890....	91,183

with much greater accuracy of the effect of the war of 1884-'85 than of the previous rate wars.

Increased importation of coffee occurred during the years 1884 and 1885. For the three calendar years before 1884, Baltimore's receipts of coffee from Brazil averaged 364,759 bags. During 1884 and 1885 the average was 486,753 bags. In 1886 and 1887 the average fell again to 211,167 bags. A comparative view of the imports from Brazil at Baltimore and New York gives a similar result.[1] The increased relative importations seem due almost entirely to the reduction of rates to the interior, by the Baltimore and Ohio, much lower than the system of differentials allowed. The increased imports came by steamer, largely on New York account, and were destined for the interior. In 1885 about forty per cent. of the coffee imported came by foreign steamers, none of which carried return cargoes to Brazil; and about seventy per cent. of this was imported on New York account. If the imports on New York account, destined for the interior, be deducted from the total for the year, the remainder will be less than the average imports from 1881 to 1883.[2] The increased western shipment of coffee from Baltimore is also noticeable. Although a general decline in this trade was already discernible, appearing most clearly after 1886, the coffee shipped west from Baltimore in 1884 and 1885 was much greater than in preceding or following years. The importance of Baltimore as a point of transhipment west disappeared with the railroad war that

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[1]Proportion of total imports from Brazil received at Baltimore and at New York:

Fiscal Years.	At Baltimore.	At New York.
1884	6.5 per cent.	82 per cent.
1885	11.6 per cent.	75 per cent.
1886	9.1 per cent.	79 per cent.
1887	5.7 per cent.	86 per cent.

[2]Coffee imported into Baltimore from Brazil during the calendar year 1885, total, 501,527 bags; imported by steamer, 204,217 bags, of which 143,054 bags came on New York account. See *Journal of Commerce*, annual statements for 1884, 1885, and 1886.

had occasioned it. In 1886, coffee was again imported exclusively in American sailing vessels, on Baltimore account, and for the use of the local trade.

Since 1885 no marked change has occurred in Baltimore's coffee trade. New York's position has become more firmly established.[1] The concentration of the trade in Venezuelan coffee is complete; the share of New York in the trade in Brazilian coffee is steadily increasing. New York seems to be in a position to secure most of the increase in the trade. But Baltimore's vested interests, the need of a return cargo for its exports of flour, and its lower port charges, probably guarantee the maintenance of its present trade in coffee. Baltimore's trade in coffee is by no means limited to its direct importations. It is estimated that one-half of the coffee imported by Baltimore dealers comes through New York, and is distributed from that city instead of Baltimore.

The relative advantages of New York and Baltimore may be briefly summarized. (1) The charges at Baltimore are much lower than at New York. The Board of Trade places the cost of sampling and unloading at $14.50 per 1000 bags in New York, and only $2.00 in Baltimore. (2) Transportation to the interior is cheaper at Baltimore than New York. If the system of differentials is carried out in good faith, this would mean an advantage to Baltimore of $39.60 per 1000 bags. (3) New York is a much better market for general imports than Baltimore, because of its superiority as a distributing centre. This advantage enables vessels to obtain a better cargo for New York than for Baltimore. (4) New York possesses regular steam transportation from Brazil, and Baltimore does not. Over ninety-five per cent. of the imports into this country, exclusive of the imports into Baltimore, come by steamer; seventy-eight per cent. of the

[1]From 1869 to the present the trade of New Orleans has remained almost stationary. New Orleans has no export trade to Brazil; its imports are largely carried in transient steamers. There is no such close correspondence between its total imports of coffee and its total imports from Brazil as in the case of Baltimore.

imports into Baltimore come in American sailing vessels.[1] Importation by steamer is characteristic of New York's coffee trade; importation by sail, of Baltimore's coffee trade. The two methods will be contrasted.

There is no difference in the rate to Baltimore and to New York; Baltimore's greater proximity to Brazil is hence no longer any advantage. The rate by steamer is forty-two cents per bag, and by sail twenty-five cents. There is thus a saving of freight by sail amounting to one hundred and seventy dollars per thousand bags. The coffee, moreover, comes in considerably better condition by sail than by steamer. These advantages, however, have been proved by the logic of events to be small in comparison with the advantages offered by steam transportation. (1) Coffee is purchased on a narrow margin between the New York and the Rio quotation. Hence the importance of certainty, both as to the time of sailing and the length of the voyage, is very great. Steamers do not make the voyage in so much shorter time than sailing vessels do on the average. But the length of the voyage of the steamer is calculable—about twenty-four days—while the time for the sailing vessel varies from thirty to sixty days. (2) The amount of interest is affected by the length of the voyage. Coffee is purchased by draft on London payable after sight. Thus another element of uncertainty[2] is present in importation by sailing vessels. (3) The marine insurance on cargoes of sailing vessels is double that on cargoes of steamers.[3] The decisive advantage afforded by regular steam transportation—an advantage enjoyed exclusively by New York—is greater certainty, and hence the ability to purchase on a closer margin. It is this advantage that has led Baltimore dealers to import largely by way of New York.

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[1]Figures are for the fiscal years 1892 and 1893.

[2]Of perhaps $85 per 1000 bags.

[3]An advantage in favor of steamers of about $68 per 1000 bags.

II. Trade with the West Coast.

The total suspension of the importation of guano from Peru to this country during the Civil War has already been considered. Upon the close of the war the attempt was made to resume the trade as it had existed before the outbreak of the war. From September, 1866, the imports of Peruvian guano at Baltimore were heavy. It was expected that Baltimore would again become the leading market for that article.[1] From the latter part of 1867, cargoes were consigned to a special Baltimore agent, instead of the New York agents.

The imports, however, were soon found to have been excessive. Before the war, guano at Baltimore had been largely taken by the south. During the war, a substitute for guano was required in that section, and a large increase in the manufacture of fertilizers took place. The demand for guano at the south was thus largely diminished, even after the war was over.[2] The high price of Peruvian in Maryland had rendered necessary recourse to phosphatic and manipulated guano. As the land came to be devoted more to the cultivation of wheat and relatively less to tobacco, the distinctive quality of Peruvian guano, its large proportion of ammonia, was less necessary. Competition with other fertilizers—of which various kinds were manufactured in Baltimore at this time[3]—largely restricted the use of Peruvian guano in Maryland. The use of Navassa guano, especially, was extended in Baltimore after the incorporation

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[1]See *Price Current*, annual statements for 1866 and 1867. From September, 1866, to the close of 1867, Baltimore imported 41,604 tons of Peruvian guano; the whole country received only 87,103 tons for the two fiscal years 1867 and 1868.

[2]*Ibid.*, annual statements for 1866 and 1871; see also issue of March 11, 1871.

[3]*Ibid.*, 1867. Nineteen varieties of fertilizers are listed.

of the Navassa Guano Company in 1867.[1] After the war Peruvian guano was only one of many fertilizers; before that time it had possessed a considerable element of monopoly.

From 1868 to 1873 excessive and insufficient importation into Baltimore regularly alternated. From 1874 to 1879 the importation was relatively stable, but small compared with previous years. In 1889 the last importation of Peruvian guano took place.[2]

The decline in the imports of Peruvian guano was not confined to Baltimore; Baltimore's trade only shared in the general movement. Guano as an export from Peru had to compete with nitrate of soda.[3] By 1873, the government began to fear that nitrate of soda, an industry conducted on private account, would become more important than guano, the industry in which the government was interested. In 1874 nitrate of soda was exported to greater value than guano. The next year it was determined to secure the nitrate industry as a means of national revenue to take the place of guano, the export of which, it was plainly seen, must soon cease.[4]

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[1]The principal use of Navassa was as an ingredient in Patapsco guano. *Ibid.*, 1864.

[2]Note the advertisement of J. Q. A. Holloway, as agent for W. R. Grace and Company, of New York, agents for the consignees of the Peruvian government, in the *American Farmer* for April and May, 1880. Also the advertisement of Robert Turner and Sons in the *Journal of Commerce* during the latter part of 1881. The guano offered by Turner was purchased at the deposits from agents of the government.

[3]Nitrate of soda was introduced into commerce earlier than guano —during the decade from 1820 to 1830. Its real importance dates from 1852, the year the first company for the mining and manufacture of nitrate was formed. Until 1875 the trade continued in the hands of private companies. *Consular Reports*, No. 68, 603-613; No. 114, 407. Baltimore imported some little nitrate before the Civil War, but it was little used as a fertilizer in that section. Maryland, *Fifth Agricultural Report*, 1856, 42; see also *Price Current*, Dec. 29, 1855, and Feb. 17, 1856.

[4]*Commercial Relations*, 1875-'76, p. 1118; 1876-'77, p. 786.

The war with Chile left the industry in the hands of that country. On June 11, 1881, the president decreed the return of the works to the persons holding certificates of indebtedness. English companies secured the largest of the old establishments. Strong efforts have been made to monopolize the trade.[1]

Baltimore's trade in nitrate of soda has always been small in comparison with its trade in guano. In 1834 and 1838 small quantities of nitrate (or saltpetre) were imported from Peru and Chile. In 1858, nitrate to the value of $46,039 was received, of which about one-fourth was imported on Boston account. Since 1874, Baltimore has received nitrate of soda with considerable regularity, and since the Chile-Peruvian war, nitrate has constituted almost the whole of Baltimore's imports from Chile. Baltimore has never ranked above fifth place as importing point for nitrate of soda, except in 1893, when it reached third place.[2] Nitrate has never been in demand as a fertilizer in Maryland; it has been required only for use as a chemical. Its influence on the trade of Baltimore has been mainly negative. It furnished a substitute for guano as an export from Peru,[3] much less suited to the demands of Baltimore.

Baltimore has left of its trade with the west coast of South America only its imports of nitrate from Chile. The copper trade was lost through the tariff of 1869. No exports to Peru have taken place, at least since 1868, and none to Chile since 1875.[4] The true sequel to Baltimore's trade in Peruvian guano is to be found in its extensive fertilizer trade. Of other

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[1] *Consular Reports*, No. 68, pp. 603-613.

[2] New York, San Francisco, Boston, and Philadelphia usually rank higher than Baltimore. In 1893, Baltimore came after San Francisco and received 5,690 tons valued at $191,185, of which 95 per cent. came from Chile. The imports of nitrate average about $125,000.

[3] See *Journal of Commerce*, April 11, May 30, August 15, October 10 and December 5, 1885, and February 20, 1886.

[4] During the seven fiscal years, 1869 to 1875, Baltimore's exports to Chile were only $92,382.

guanos, Navassa has found its principal market in Baltimore. Peruvian guano was the first great commercial fertilizer, and concentrated the fertilizer trade at Baltimore. For the last two decades the trade in fertilizers has been very extensive; it is no longer a branch of the South American trade; but the South American trade before the Civil War prepared the way for it.[1]

[1] In 1880 commercial fertilizers to the value of $5,419,358 were manufactured in Baltimore. "Baltimore has entire control of the fertilizer market now and ought to keep it." *Journal of Commerce,* April 8, 1882. In 1894, Baltimore's output was about 200,000 tons. *Ibid.,* January 26, 1895. See also *Board of Trade,* Report for 1896, 36-37.

CHAPTER IV.

CONCLUSION.

Baltimore's Flour Trade with Brazil.

While the general tendency has been for the trade between the United States and South America to become concentrated at New York, Baltimore has probably remained the chief place for the export of flour to Brazil.[1] It is necessary to inquire, in detail, why this trade has been so much more successful than other branches of the South American trade. The chief reasons seem to be: (1) Baltimore's imports of coffee have furnished a return cargo for flour. (2) Baltimore flour has been especially manufactured to suit the requirements of the Brazilian climate. (3) The trade with Brazil has been of sufficient extent for Baltimore to export the one line of goods for which it is best fitted without exporting mixed cargoes for which, in comparison with New York, it is entirely unfitted. (4) Steam transportation, with the system of triangular voyages, has rendered it possible for New York to ship an assorted cargo and Baltimore to ship flour by the same vessel. (5) Baltimore has less competition to meet on the part of New York in the export than the import trade, because of the triangular voyage from New York to Europe, and thence to Brazil.

(1) The coffee trade which Baltimore retains furnishes at

[1]Baltimore possesses about 20 per cent. of the export trade with Brazil. It ships nearly as much flour there as all the other ports of the United States together. In the fiscal year 1896, its proportion was 47 per cent. of the whole. Baltimore's share of the imports from Brazil and Chile is about 5 per cent., and from Uruguay, 2 per cent. In other branches of the trade, its share has become insignificant.

least a partial return cargo for Baltimore sailing vessels carrying flour to Brazil. The flour trade is not produced, but rather limited, by the coffee trade. Yet without the latter, a most important part of the flour trade would be lost—that carried in American sailing vessels, which in 1892 and 1893 formed forty-seven per cent. of the total exports. These vessels, belonging to the port and engaged regularly in the trade, not only show the means by which this trade was built up, but to-day constitute one of the most conservative forces in the trade.

(2) Baltimore is especially fitted for the export of flour to Brazil. The need of preparing special goods to satisfy the peculiar demands of the South American market, has been urged again and again as a most important means of increasing the export trade of the United States.[1] Baltimore has done this in the case of flour, especially since the Civil War. New York, on the contrary, is by no means a good flour market, except for western flour, a description of little demand in Brazil. Brazil must receive Baltimore flour, and it has been found cheaper for vessels from New York to stop at Baltimore *en route* for Brazil, than to carry the flour to New York and tranship it there. Baltimore is also a good market for the secondary staple exports, bacon and lard.

(3) The advantages from the concentration of a particular line of trade decrease as its size increases. A trade must be large to enable it now to be divided among several ports. As the trade is smaller, and as the number of commodities included within it is larger, its concentration at one port is more certain. No other city approaches New York as a market for general commodities. The Brazilian trade, however, is extensive; and both among its exports and imports there is one line of goods large enough in itself to constitute a trade. The tendency is for the mixed cargo to be shipped

[1] European and American manufactured goods contrasted, in *Handbook of the American Republics*, No. 1, 140, 149-150. A much closer parallel to Baltimore flour is brought out in the contrast between French and American butter. *Commercial Relations*, 1895, i. 64.

from New York and flour to be shipped from Baltimore. This is rendered possible by the triangular voyage between New York, Baltimore, and Brazil.

(4) Steam transportation, as has been shown, appears to be less necessary for exportation to Brazil than for importation from that country, and less necessary probably for the exportation of flour than mixed cargoes. Coffee importers usually ship flour to Brazil on the return of the vessel. Flour is an article for which the demand is constant, and but little affected by the price. The Brazilian market is not sensitive; comparatively little risk is assumed in exporting a cargo of flour. Coffee, on the other hand, is imported on a close margin between quotations in Brazil and in this country, and in its case lack of swift and regular means of transportation must often cause a loss to the importer. Regular steam transportation is thus less important in the case of flour than coffee. But Baltimore does not suffer even this minor disadvantage. Its excellence as a market for flour has given it regular steamers to Brazil.

(5) Baltimore has less competition to meet on the part of New York in the export than the import trade, because of the alternate employment that is open to steamers which have brought coffee to New York, to carry grain to Europe, and thence dry goods to Brazil, rather than carry a return cargo direct to Brazil. This triangular voyage is based on the demand of Europe for American grain, the demand of New York for Brazilian coffee, and the demand of Brazil for European dry goods. Only steamers seem fitted for such a voyage; at any rate, the triangular voyage does not diminish at all the tonnage clearing from Baltimore to Brazil, while it materially lessens competition from New York. The demand for transportation to Brazil is much greater than the demand for transportation from Brazil to this country. Vessels clearing for Brazil almost always secure a full cargo. The value of the imports greatly exceeding that of the exports tends to obscure this fact. Thus from 1891 to 1895 the value of the imports was six

times as great as the value of the exports.[1] But coffee is about seven times as valuable as flour in proportion to weight. In bulk, therefore, the imports and exports are about equal. But owing to the triangular voyage by way of Europe, a much larger amount of tonnage seeks cargoes for this country than for Brazil.[2] The consequence is that the flow of exports to Brazil is much stronger than the flow of imports here.[3] This general fact is peculiarly apparent in the case of Baltimore. The clearances at Baltimore are three times as great as the entrances.[4] But this is not all. Vessels enter with but partial cargoes; they clear fully laden. The calculation given brings out this fact:[5]

Fiscal Years 1892 and 1893.	Imports and Entrances.		Exports and Clearances.	
	Sailing Vessels.	Steamers.	Sailing Vessels.	Steamers.
Cargoes:				
Value.................	5,868,285	1,647,841	2,267,410	2,281,944
W'ght, estim't'd (tons)	16,366	4,584	36,800	37,130
Tonnage of Vessels.....	24,534	4,763	37,943	55,201

[1]Exports, $69,591,905; imports, $436,277,972.

[2]Tonnage entered New York from Brazil, 1891 to 1895, 1,153,377; cleared, 621,951 tons. Excess of clearances of foreign steamers over entrances at Baltimore, comprising approximately the triangular voyage between New York, Baltimore, and Brazil, 150,012 tons. Deducting this figure, the difference of 381,414 tons, about one-third of the whole, represents approximately the tonnage engaged in the triangular voyage between New York, Europe, and Brazil.

[3]A further indication of this fact appears in the much higher rate of freight, in proportion to bulk, for flour than coffee. The rate for flour may be placed at 75 cents per barrel (196 lbs.) by sail and 80 cents by steamer, against 25 cents by sail and 42 cents by steamer for coffee per bag (132 lbs.) The greater difference in rates between sail and steamer similarly indicates the greater relative importance of steam transportaion in the case of coffee.

[4]Clearances, 1891 to 1895, 269,001 tons; entrances, with cargo, 87,737 tons; in ballast, 17,510 tons.

[5]The calculation is based on the following assumptions: That coffee, at 16 cents per pound, constitutes the entire inward cargo,

Thus the cargoes of sailing vessels entering Baltimore constitute little more than two-thirds their capacity;[1] while these vessels clear with full cargoes. The general rule seems reversed in the case of steamers. The exception is only apparent, however. Steamers clearing for Brazil have usually taken their general cargo at New York; and it is only to be expected that steamers bound for Baltimore will carry better cargoes than sailing vessels.

Summary of Results.

The general conclusions to which this study has led may be presented in a series of propositions:

(1) The early South American trade was peculiarly suited in its character to the spirit of enterprise and desire for adventure that actuated Baltimore merchants. As a consequence, the early commercial importance of Baltimore was due largely to its West India and South American trade.

(2) Before the Civil War, Baltimore was the principal importing and distributing centre for guano, which was the earliest commercial fertilizer introduced to any considerable extent into America.

(3) The present extensive fertilizer trade of Baltimore is historically the outgrowth of its trade in guano.

(4) The copper smelting industry of Baltimore is also the outgrowth of its South American trade. The Copper Act of

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and that flour, at $4.56 per barrel, constitutes 80 per cent., and bacon and lard, at 9.7 cents per pound, constitute 20 per cent. of the outward cargo. Flour really constituted 76 per cent. of the exports; otherwise the assumptions are strictly true.

[1]The entrances given are with cargo. In addition, many of the vessels entering, but none clearing Baltimore, are in ballast. Percentage of the tonnage of sailing vessels entering in ballast:

	At Baltimore.	At New York.
1871 to '75 ...	3	1
1876 to '80....	11	10
1881 to '85....	7	3
1886 to '90....	20	....
1891 to '95....	17	....
1896..........	20	....

1869, passed in the interest of the owners of the Lake Superior mines, necessitated the substitution of domestic for foreign ores; it caused the Baltimore establishment, which used mainly Chilean ore, to be closed temporarily; but three years later the industry at Baltimore was reorganized to work on domestic ore.

(5) Baltimore still possesses a very extensive trade in coffee. A relative decline in this trade has taken place, however, and to a limited extent the trade in Brazilian coffee has become concentrated at New York. Baltimore has completely lost its trade in all other lines of imports from Brazil. The partial concentration of the Brazilian trade at New York seems closely connected with two other phenomena: 1. The extensive employment of steam transportation; and, 2. Baltimore's lack of demand for a mixed cargo. The very considerable share of the coffee trade that Baltimore still retains is due to: 1. Its advantages as an exporting point for flour; 2. Its fleet of sailing vessels and other vested interests involved in the coffee trade; and 3. The lower port charges at Baltimore.

(6) Until 1885, the trade with Brazil formed the principal element in Baltimore's flour trade. Since 1885, the export to Great Britain has become larger. But Brazil still receives a greater quantity of Baltimore flour than any other country; and it receives a greater quantity of Baltimore flour than of any other description, and probably a greater quantity of flour direct from Baltimore than from any other port in this country.

APPENDIX.[1]

Domestic Exports from Baltimore to South America.

Countries.	1803	1810.	1816.	1823.	1827.	1838.	1848.	1858.	1863.
Colombia......	......	18,221	990	13,144	19,033	....	20,731	41,772	29,619
Venezuela.....	5,615	149,728	29,474	45,904	12,976	122,444	123 496	136,762	19,761
British Guiana	15,737	......	....	.... ..	....	....	147,180	435,623	285,382
Dutch Guiana.	14.680	13,678	......	....	....	....	....	22,315	7,741
French Guiana	41,315	6,800	7,576	....	....	....	....	....	....
Brazil..........	......	31,914	36,723	251,903	358,424	645,019	963,050	1,020,664	1,368,480
Argentina.....	......	31,374	118,422	122,178	... .	27,336	....	34,195	145,296
Uruguay......	......	21,188	....	....	50,839	29,314	167,378	223,623	....
Chile.....	. ...	....	....	11,917	601,635	175,265	143,961	205.664	122,349
Peru...........	......	....	12,571	61,824	89,275	97,525	94,815	193.825	....
Bolivia	......	....	....	....	....	....	....	12,378	... .
Ecuador.......	......	... ..	....	....	19,348	....	....	....	....
Total	77,347	272,903	205,756	506,870	1,151,530	1,096,903	1,660,611	2,326,821	1,978,628

Re-exports from Baltimore to South America.

Countries.	1803	1810.	1816.	1823.	1827.	1838.	1848.	1858.	1863.
Colombia......	.....	19,336	4,473	10,787	3,310	....	....	3,011	46
Venezuela.....	6,081	167,233	23,644	73,419	....	10,047	3,519	634	....
British Guiana	1,745	......	......	......	....	....	415	845	38
Dutch Guiana.	.....	......	......	......	....	....	....	106	....
French Guiana	25,450	......	2,111	......	....	....	....	....	....
Brazil..........	.....	74,791	29,792	11,569	28,506	54,445	16,730	22,846	7,018
Argentina.....	....	90,893	73,049	24,330	....	6,742	....	....	62,422
Uruguay	....	29,405	......	......	4,756	....	13,989	1,057	....
Chile	.....	......	......	24,650	271,818	21.392	19,446	5,779	8,040
Peru...........	.....	......	161,143	21,578	31,528	18,031	5,782	....	....
Ecuador.........	.....	......	....	......	9,527	......	....	....	....
Total.	33,276	381,658	294,212	166,333	349,445	110,657	59,881	34,278	77,564

[1]These tables have been compiled from the records of the custom-house at Baltimore. Figures are for calendar years, except in the case of 1848 and 1863, which are for fiscal years ending June 30. Returns for 1863 are somewhat incomplete.

Tables of exports and imports from 1869 to 1896, by five-year periods, compiled from the reports on *Commerce and Navigation*, are given on pp. 57, 65. Tables of the exports of flour are given on pp. 18 note, 51 note, and tables of the imports of coffee on pp. 29 note, 30 note, 33 note, of hides on p. 25 note, and of guano on p. 43 note.

Imports into Baltimore from South America.

Countries.	1803.	1810	1816.	1823.	1827.	1838.	1848.	1858.
Colombia	.....	28,946	3,389	53,144	37,488	2,816	6,250	60,010
Venezuela	8,244	241,330	84,764	171,826	11,884	170,867	215,004	154,666
British Guiana	27,834	......	......	13,422	....	....	5,018	201,557
Dutch Guiana	22,536	28,442	......	12,535	....	....	....	6,005
French Guiana	.....	......	4 774	......	....	....	....	....
Brazil	.....	31,109	67,322	226,391	634,482	928,146	1,430,565	2,889,305
Argentina	.....	132,600	148,772	62,746	....	80,292	....	1,205
Uruguay	.....	35,281	......	42,381	....	59,436	227,598	312,658
Chile	.....	......	......	118,079	44,264	422,686	166,223	467,602
Peru	.....	......	......	250,291	353,901	198,549	43,285	81,065
Bolivia	.....	......	......	......	....	....	......	2,205
Ecuador	.....	......	......	......	....	84,986	79,963	53,267
Total	58,614	497,708	309,021	950,815	1,082,019	1,947,778	2,173,906	4,229,545

X–XI

STATE TAX COMMISSIONS IN THE UNITED STATES

JOHNS HOPKINS UNIVERSITY STUDIES

IN

HISTORICAL AND POLITICAL SCIENCE

HERBERT B. ADAMS, Editor

History is past Politics and Politics are present History.—*Freeman*

FIFTEENTH SERIES

X–XI

STATE TAX COMMISSIONS IN THE UNITED STATES

BY JAMES WILKINSON CHAPMAN, JR., Ph. D., LL. B.

Member of the Baltimore Bar

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PREFACE.

This monograph is the outgrowth of a study of the reports made by the State Tax Commissions in the United States, appointed to investigate the problem of taxation as it existed in the States which they represented.

It is the purpose of the writer to present the imperfections of the tax systems in the several States and to show the manner in which the commissions have performed their duties, attention being directed also to the results which their labors have accomplished.

This paper was practically completed in the fall of 1895, before the appearance of Professor E. R. A. Seligman's "Essays on Taxation," in which he has critically examined several reports made by these commissions.

Inasmuch as it was not the writer's purpose to present a criticism upon the recommendations of the commissions, he has been unable to make use of Professor Seligman's work in revising this paper for publication.

He takes this means, however, of acknowledging the kindness of Prof. Seligman in placing scarce reports in his hands. He also wishes to acknowledge especially the service of Dr. J. H. Hollander, of the Johns Hopkins University, who assisted him by many helpful suggestions.

James W. Chapman, Jr.

Baltimore, Md., *November*, 1897.

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STATE TAX COMMISSIONS IN THE UNITED STATES.

CHAPTER I.

Development of the Problem of State Taxation in the United States.

The history of local taxation in the United States with respect to the causes leading to the creation of State Tax Commissions may be divided into three periods: (1) from the foundation of the Colonies to 1796; (2) from 1796 to the Civil War; (3) from the Civil War to the present.

From Foundation of the Colonies to 1796.[1]

The colonists were more concerned with the underlying principles of taxation than with the amount of the tax. The needs of each colony were few and simple, making the amount demanded insignificant. There were no heavy expenditures, no sudden fiscal demands; merely a small, steady expense account, which could be met without the aid of organized administrative machinery. In certain colonies the contributions were voluntary,[2] and were applied to the support of the colonial government and to the maintenance of schools, churches and highways.[3] But the colonists could not continue to rely on voluntary impulses when ex-

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[1] R. T. Ely, "Taxation in American States and Cities," Part II, Chap. I.

[2] In Massachusetts, about 1629, an appeal was made asking individuals to spare as much toward extinguishing debts as they possibly could. Charles H. Douglas, Ph. D., "Financial History of Massachusetts," pp. 14, 15, 19.

[3] F. A. Wood, Ph. D., "Taxation in Vermont," pp. 104, 108, 113; W. L. Ripley, Ph. D., "Financial History of Virginia," p. 87.

penditures began to increase. The honest and willing contributor soon became the shirking taxpayer. The absolutely necessary expenses of government had to be met, and the passage of laws requiring compulsory contribution became necessary.[1]

Thereafter colonial revenues were derived largely from fines, fees, forfeitures,[2] quit-rents, lotteries, tangible property and the sale of land. Grants of land[3] were made to officials, from which they were to meet the expenses of their office and pay their salaries. Direct taxes were levied upon all property[4] or the income from it, or upon the head.[5]

The poll tax was very popular. Inequalities arose from the taxation of visible property alone, and in order to equalize the burdens, resort was had to the income tax. For the most part, specific objects were selected as the basis of assessment, and specific rates were attached thereto.[6] Land was a most important object of taxation in New England. From very early times direct taxes and excise and import duties were levied, frequently being paid in kind.[7] Instead of any one prevailing system in the several colonies

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[1] "Financial History of Virginia," pp. 20, 21; "Taxation in American States and Cities," p. 109.

[2] "Taxation in Vermont," p. 28; "Financial History of Virginia," p. 21.

[3] The Council of Censors in 1780 said that land grants and confiscated Tory estates seem to have been a boon conferred by Providence for the support of our republic in its infancy while its subjects were unable to pay taxes. "Taxation in Vermont," p. 70.

[4] "Taxation in Vermont," pp. 25, 35, 36, 121; "Taxation in Virginia," p. 2; "Taxation in Massachusetts," pp. 17, 59, 78.

[5] "Taxation in Vermont," pp. 30, 35; 36; "Financial History of Virginia," pp. 21, 23, 29, 33, 35, 38, 41; "Financial History of Massachusetts," p. 29, states that the poll tax is by far the most interesting feature of Massachusetts' finances under its first charter.

[6] "Taxation in Vermont," pp. 34, 38; "Financial History of Virginia," pp. 25, 44.

[7] "Financial History of Virginia," pp. 17, 29, 32; "Financial History of Massachusetts," p. 32, states "Excise and imports were introduced as a means of easing the burden of direct taxation." Also pp. 78, 95.

(or States) during this period, great dissimilarities existed. In 1796 Secretary of the Treasury Wolcott, in his report, called the attention of the Federal government to the varied forms of taxation in the several States.[1]

The characteristics of local taxation in the United States at the close of the eighteenth century have been given as follows: "(1) Specific objects were usually selected for taxation rather than all property; (2) visible property bore all, or nearly all, the burden; (3) taxes were usually laid according to some fixed and arbitrary rule of valuation, rather than according to the selling value of the objects taxed." [2]

From 1796 to the Civil War.[3]

During this period many of the States adopted their present system of taxation, owing to the new conditions presented by the progress of the nineteenth century. Forms of property multiplied, objects increased rapidly in value because of the change in environment.[4]

With this increase in wealth arose a popular demand that the basis of taxation be broadened. Many new forms of property began to appear. Corporations,[5] railroads, the telegraph, telephones, banks, manufactures, multiplied as industrial factors. Invisible personalty augmented with incalculable rapidity. Cities increased in size and number, furnishing a cover for the concealment of the new forms of personal property. The great number of inventions, the multiplication of all forms of property, and the popular de-

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[1] Only Maryland, Rhode Island, New York and Delaware imposed taxes on the mass of property, real and personal; in the other States specific objects were designated. "American State Papers," vol. 7, p. 437, "Report of Mr. Oliver Wolcott, Secretary of the Treasury, on the increase of the Revenue," 1796.

[2] R. T. Ely, "Taxation in American States and Cities," p. 123; "Taxation in Vermont," pp. 34, 35.

[3] Dr. R. T. Ely treats this as the "transition period." "Taxation in American States and Cities," Part II, Chap. 3.

[4] "Taxation in Vermont," p. 37.

[5] "Taxation in Vermont," pp. 84-85; "American States and Cities," pp. 137, 138.

mand for universal taxes, constitute the main causes of the present system of State taxation.[1] The former specific taxes were abolished and the general property tax, at a uniform rate, was adopted. This tax was to be levied according to the selling value of the object.[2] In the early part of this period prosperity had been general and the people were wholly absorbed in their occupations. The burden of taxation was light, and little interest was taken in the construction of just tax laws or in their administration.[3] Hence few complaints were heard, the laws remained without scrutiny and did not change with changes in industrial life.[4]

From 1850, however, the demands of the State for revenue increased rapidly;[5] taxes became much heavier and complaint was made against tax laws and their administration.[6] In Connecticut, previous to 1819, the basis of taxation was net revenue, and all property was subjected to a fixed charge.[7] This prevented fraud. But in 1819 the value of the property was made the basis of taxation. There re-

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[1] Connecticut adopted its present system about 1850; Ohio, 1846; Maryland, 1841; Virginia, 1852; New Hampshire, shortly after the Civil War; Pennsylvania, 1841; Louisiana, 1848; Vermont, 1855.

[2] By law of 1825, land was listed according to estimated value and no longer at a fixed rate. "Taxation in Vermont," pp. 47, 48, 121.

[3] "New York Tax Commission Report of 1871," pp. 9, 10.

[4] "Taxation in Vermont," p. 48.

[5] The aggregate taxation for New York State in 1850 was $6,312,-787, while in 1860 it amounted to $18,956,024 ("New York Report, 1871," p. 10), and in 1861, $20,402,276.48 ("Taxation in American States and Cities," p. 457); aggregate tax in Ohio in 1840 was $1,755,539, and in 1850, $4,227,708, in 1860, $10,817,676 and in 1865, $20,870,828 (ibid., p. 456). Aggregate taxation for Chicago in 1850 was $25,270.87; in 1855, $206,209.03, and in 1860, $573,315.29 (ibid., p. 489). Aggregate taxation in Baltimore for 1851 was $270,503.93; 1855 was $634,030.22; 1864 was $1,023,831.99 (ibid., p. 481).

[6] "New York Tax Commission Report of 1871," pp. 9-10; "Taxation in Vermont," p. 42.

[7] The acreage of each farm, the general character of each lot and the dimensions, use, etc., of each building were readily ascertained, and the law then fixed the rate of assessment. "Report of Connecticut Tax Commission of 1886," p. 10.

mained no fixed way of determining value and fraud was at once practised. Before 1850 personalty was listed at 6 per cent. and realty at 3 per cent. of its true value. These conditions gave rise to the appointment of the first tax commission in 1843, for the removal of all unfairness from the existing tax system.

From the Civil War to the Present Time.

The increase in State expenses, the multiplication of property, the growth of cities and the changes in industrial life were the potent conditions which aroused the taxpayer and led to an investigation of all questions of taxation in the United States. The Civil War added to the burdens of the States. There was in consequence a decided increase in State expenses,[1] which brought into bolder relief the inequalities wrought by existing tax provisions. The systems of several States were adopted after the Civil War, but all were based upon the same principle of taxation. The general property tax was applied in all the States and the evils resulting were for the most part identical, if not parallel, in development. These evils have since changed only in degree, and may be regarded as giving us the general con-

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[1] Massachusetts State taxation in 1861 amounted to $7,600,000; in 1869 to $21,921,569. In Ohio in 1861 to $11,071,000; in 1869 to $22,232,877 ("New York Tax Commission Report, 1871," p. 10).

In New York the aggregate valuation of property in 1862 was $1,449,303,948, and the aggregate yield of taxes was $19,456,288; in 1869, valuation, $1,860,120,770; taxes, $46,161,531. The valuation of property from 1860 to 1869 augmented 30.3 per cent., while the average rate increased 85 per cent., and the sums raised increased 140 per cent.

Estimated per capita, the aggregate of the State taxation, which in 1860 was $4.88, has since increased until in 1870 it was equivalent to $11.55 for each man, woman and child in the State ("New York Tax Commission Report, 1871," p. 14).

In Baltimore in 1855 total taxes yielded $634,030.22, and in 1860 $750,206.02, while in 1865 the total yield was $1,320,326.76 (Ely, "Taxation in American States and Cities," p. 481).

In Chicago total tax yield in 1861 was $550,968; in 1865, $1,294,-183.50, and in 1870, $4,139,798.70 (Ely, "Taxation in American States and Cities," p. 489).

dition of taxation which led to the creation of State tax commissions.

Real Property.—Though realty is visible and tangible, and hence capable of true valuation, yet it seldom receives its proper valuation, viz., that value which it would bring if placed at public sale. The assessment of both land and buildings varies from 50 per cent. to the true value.[1] The standard of valuation varies in the same county, hundred or district. The laws are complex, confused and inefficient in many respects, making it almost impossible for assessments of realty to respond to fluctuations in value. The owner, therefore, is in some cases made to pay heavier taxes than he should, while in others the State fails to receive its due revenue from taxes.[2] In many States realty bears more than its proportion of the tax, simply because it can all be seen and assessed, while other property cannot be discovered. In order to lighten burdens the demand is made that the exemption list be shortened by taxing churches and educational and charitable institutions.

Personal Property.—Personalty, for the most part, being intangible, and in consequence capable of easy transfers and concealment, repeatedly evades taxation. Notwithstanding the great progress made by the several States, the augmentation of wealth in cities and commercial centres, the establishment of new and the development of old industries, the creation of corporations of various kinds, and the rapid increase of population, the reports of State tax officials reveal the startling fact that assessed personal property has been decreasing gradually or only slightly increasing.[3]

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[1] "Taxation in Vermont," p. 61; "Report of Maine Tax Commission, 1890," p. 11; "Report of New York Tax Commission, 1871," p. 14; "Report of Connecticut Tax Commission, 1886," p. 8. All Commission Reports bring out the same facts.

[2] Of course I have reference here only to those cases where the assessments are at long intervals. Maryland had no general assessment between 1876 and 1896.

[3] From 1860 to 1880, according to the U. S. Census returns, the assessed valuation of personalty in all the States decreased from

This failure to assess personalty raises the rate upon those who return their property in full to an excessive amount.

In every State there can be found many persons advocating the taxation of mortgages. The main difficulty, if double taxation is to be avoided, is how to make the mortgage taxable to the owner.[1] Others advocate exemption because of difficulty of taxing the mortgage and also because of depression in agricultural districts. The taxation of mortgages under such conditions might cause their recall, thereby bringing financial ruin upon the mortgagor.[2]

The wisdom of exempting debts, book accounts, and municipal bonds from taxation has been considered in every State. By the deduction of debts, frauds are perpetrated and fictitious debts are created in order to evade the tax. Some demand deduction of debts[3] alone from credits,[4] while

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$5,111,554,000 to $3,866,227,000 (or by $1,245,327,000), while the assessed value of realty increased from $6,973,006 to $13,036,767.

In Brooklyn in 1892, personal property to the amount of $1,500,000 was dropped from assessment, and at the present time it is paying only 4 per cent. of the taxes levied ("Report of the Counsel to revise the tax laws of the State of New York, 1893," p. 8). Mayor F. C. Latrobe (Baltimore) said in his message, January 28, 1895, "Indications seem to show that people are either disposing of their personal property or it is failing to be discovered and assessed."

"The taxation of personal property is in inverse ratio to its quantity." E. R. A. Seligman in "Political Science Quarterly," vol. 5, 1890, p. 29.

In Vermont the valuation of personalty in 1866 was placed at $21,435,281; in 1870 at $21,555,428; in 1874 at $19,330,432; in 1878 at $16,845,123; in 1880 at $15,037,262. F. A. Wood, "Taxation in Vermont," pp. 60, 61.

[1] California, Massachusetts, Oregon and Pennsylvania endeavor to tax the mortgagee.

[2] The plea of Maryland.

[3] "Taxation in Vermont," p. 62: By act of 1880, no deduction could be made for debts owed unless the statement contained the name and place of residence of each person to whom the taxpayer was indebted and the amount owed each." Also, pp. 67, 122: "The changes in the present law most frequently suggested in recent years have been exemption of mortgages from taxation and deduction of debts on real estate from the valuation of real estate," p. 122.

[4] Indiana, Iowa, Massachusetts deduct debts from credits; New

others demand complete deduction from all property.[1] To tax book accounts and merchandise is considered double taxation, and because of this and the uncertain value of accounts many claim that exemption is proper and just.[2]

Corporations.—The opinion is quite generally held that corporations are not contributing to their full ability.[3] Railroads, insurance, telegraph, telephone, express, safety deposit and trust, parlor car and sleeping car companies, it is thought, should increase their contributions. There is divergence of opinion as to the best and most just way of estimating the ability of the corporation. The taxation of gross receipts, of net receipts, and of the franchise and capital stock have been urged.[4] Questions arise also as to the taxation of foreign corporations, so as at the same time to deal justly with the domestic corporation.

Savings banks have been almost exempt from taxation. But of late years they have attracted attention by their alleged misuse. They have become places of deposit for the wealthy, who thus strive to escape taxation, and moreover, they have gone into local fields and withdrawn much property from taxation. They have also been large purchasers of national bank stock, in competition with private citizens; having no taxes to pay, the banks can bid higher. The problem presents itself, what shall be done to restore fairness and cause the bank to resume its original function?

York, from money and credits ("Pennsylvania Tax Commission Report of 1890," p. 187).

[1] Illinois allows all bona fide debts, except subscriptions or insurance notes and debts of banks, to be deducted ("Pennsylvania Tax Commission Report, 1890," p. 187). Pennsylvania makes no deductions on account of debt.

[2] Maryland Tax Commission Report, p. 16.

[3] Maine Tax Commission Report, pp. 64, 66; Maryland Tax Commission Report, p. 60.

[4] These are brought out in Chapter III of this work, where the recommendations of the commissions are considered. The revenue from corporations' taxes has been increasing in Vermont, and since 1890 has formed the greater part of the ordinary commonwealth revenue. In 1883 $196,678.51 was received; in 1890 $250,-285, while in 1892 $335,992.64 was received. "Taxation in Vermont," p. 97; Maine Tax Report of 1890, pp. 64, 67; Ohio Tax Commission Report, 1893, p. 70, also 49, 51.

National bank stock has in many States escaped taxation, being made taxable where the owner resides. The situs of personal property does not seem to be a settled principle. Massachusetts[1] has continually claimed *mobilia personam sequuntur*, while New York, among others, denies the right of any State to tax visible and tangible property outside of the State, though the domicile of the owner be within the State.

The policy of discounting taxes upon their prompt payment before a fixed date is pursued by several States, but its justice is challenged by others, upon the ground that the custom creates inequalities and is enjoyed entirely by those best able to pay taxes.

In the endeavor to assess property which has been continually escaping taxation, very general use has been made of the oath.[2] Though by its application some property is assessed that would otherwise evade taxation, yet of late years its net benefit has been doubted, because of its harmful effect upon public morality.

With the expenses of the States increasing rapidly, and with personalty paying a decreasing proportion, owners of real estate and tangible personalty must expect heavier taxes if there is not an extension of the basis of taxation. Several comparatively new taxes have been proposed, namely, on business,[3] on income,[4] on inheritances[5] (direct and collateral), and the single tax on land.[6]

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[1] Massachusetts says personalty follows the owner, but if the owners of property in Massachusetts live in another State, that rule is not followed, and the man is taxed on his property.

[2] Massachusetts, Connecticut, Ohio, Illinois, Iowa, Wisconsin, Kansas, Minnesota, California, Rhode Island, West Virginia, Kentucky, South Carolina, Arkansas, Oregon and other States apply oaths in assessment. Pennsylvania, Michigan, Georgia and other States do not apply the oath.

[3] Tax Commission Report of Ohio, 1893, pp. 18, 47.

[4] Tax Commission Report of Massachusetts, 1894, pp. 33, 34; also 1895, pp. 48, 55.

[5] Tax Commission Report, Massachusetts, 1894, pp. 20, 25; Ohio Report, 1893, p. 62; Maine Report, 1890, pp. 58, 63; Dr. Wood, "Taxation in Vermont," p. 123.

[6] Massachusetts Report of 1894 considers it also.

The evils of taxation in every State can be traced either to the laws themselves or to their administration. The inequalities in taxation are frequently held to arise rather from careless assessments, from inadequate means of equalization and from a lack of supervision than from the crudity of the laws which declare what shall be the objects taxed.[1]

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[1] The problem of taxation is stated in detail in Table No. I, and also in Chapter III, where the evils in each State are considered and also the recommendations of the commission. The purpose of this chapter has been to give in a brief way the reasons for the study of the tax commission.

CHAPTER II.

THE STATE TAX COMMISSION.

The prevalence of the evils of taxation, as described in the previous chapter, led to the creation of the State tax commission. These evils are not the immediate consequence of the adoption of the present State systems of taxation, but many of them in essence existed prior thereto. Hence it is not surprising to discover that some effort was made to remedy these evils before the creation of the State tax commission. Instances occur where functionaries of the State, both individuals and boards, in contact with the working of the tax laws and observant of its failures, have been requested to present some account of the precise condition of taxation as seen by them, and of the attitude of the people toward the administration of the laws, and finally to recommend what they deem essential for the improvement of the present tax system. It was not, however, until the year 1843 that the so-called State tax commission had its genesis. It was an innovation and remained so for a number of years, when its effectiveness began to be noted.

Not only the injustice of the tax laws and their faulty administration, but also rapid changes in the laws of certain States awakened taxpayers of adjoining States to consider the advisability of creating commissions. It was very possible for a State to so alter its laws with reference to the taxation of certain industries and forms of property as to attract important industrial factors of contiguous States.[1] In a few States inequality in taxation became a subsidiary evil, and the desire to retain present industries and attract those of sister States by exemption or comparatively light taxation came forward as the most important consideration.

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[1] Pennsylvania, New Jersey, New York and some of the New England States had this experience.

The State tax commission was created to study the above conditions and to propose corrective measures.

Creation and Composition.—A State tax commission is entirely a creation of the State legislature. This body defines the duties and the powers of the commission and provides for the appointment of those who shall constitute it. The power of appointment is generally delegated to the governor of the State, but in some cases his council assists him. The commissioners are ordinarily representatives of specific classes of industry. In some cases the legislature appoints the commission and occasionally makes the appointments from its own members.[1] The Revenue Commission of Pennsylvania, created in May, 1889, was composed of eight citizens, each of whom was appointed by a different authority. Here we have the Senate, the House, the Auditor-general, the Governor, the State Grange and Secretary of Internal Affairs given appointive power.

The acts often provide that the commission be made up of men of different political convictions.[2] The act creating the commission of Iowa of 1892 provided that the agricultural class be represented on the commission in that ratio which the assessment of the agricultural property bears to the assessment of all other property in the State.[3] The number composing the commission has varied between two and twelve. Their existence has generally been for one year.[4]

Duties.—The duty of the commission is to investigate the alleged evils, to discover whether they exist, and, if their existence be shown, to find the cause and to prescribe remedies or reforms. The commission is to inquire into the valuation put upon property and to observe whether one uniform rule is followed. Its members are to endeavor to devise means by which invisible personalty may be reached; they are to suggest ways in which the tax rate may be low-

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[1] Special Committee on Taxation of Massachusetts, 1893; New York, 1862, 1892; Connecticut, 1843; Oregon, 1890.

[2] Iowa Commission of 1892, and that of Ohio, 1893.

[3] Iowa Tax Commission Report, 1893, p. 5.

[4] See Table No. I.

ered; they are to revise, simplify and codify the laws concerning taxation;[1] they are to analyze thoroughly the administrative machinery and recommend advantageous changes.

In order to alter the laws in any way, the commission must be acquainted with the constitution of the nation and of the State. This information will enable them to form boundaries within which they may formulate their opinions and suggestions; or it may inform them what changes must be made in the constitution in order that its recommendations may become law. Whatever, however, may be the benefit of an acquaintance with the constitution, it is the duty of the commission to refer to it, for no intelligent recommendation can be made unless a knowledge of the constitutional limitations is possessed.

It is also the duty of the commission after completing their researches to present their opinions and alterations recommended, in the form of a report to the legislature. Frequently the demand is for increased revenues, while property is already heavily taxed. An investigation of the tax systems of other States is therefore often made in order to discover a method of securing the requisite amount of revenue without augmenting the taxes of those already contributing. It is essential that the commission should inform themselves in every particular if the problem is to be solved.

Powers.—In some States the acts creating the commission minutely define the powers of the commission. Where the powers are not enumerated the commission is regarded as an official body, enjoying access to all governmental records and papers, and empowered to enforce the law against all individuals opposed to its purpose.

The enabling acts of the Ohio commission of 1893 may be taken as illustrative of the powers customarily possessed by all commissions. This commission was empowered to

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[1] New Jersey State Board of Taxation Report, 1892, p. 34; Massachusetts Report, 1894, p. 1; Maine Report, 1890, p. 86; New York Report, 1893, Counsel, p. 5.

compel the attendance of all persons within the State whom it deemed capable of giving information. It could secure all figures, reports and pamphlets which dealt with the varied interests of the State. Not only were papers to be brought, but individuals were compelled to appear and testify when summoned, and, upon refusing, they were liable to arrest and punishment by the commission in the same manner as provided for in courts of justice in the State. Those who testified falsely were liable to the penalty prescribed for perjury.

Methods.—In the analysis of the evils of taxation various means are utilized. The first source of information is naturally the experience and opinion of administrative officials, assessors, collectors and all coming closely in contact with taxation in an official way. Circulars are customarily addressed to these functionaries requesting them to appear in person before the commission or to submit a statement of their objections to the law itself and its execution, with the result of the taxes levied upon the property in the State and their suggestions respecting corrections.[1] Not

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[1] Some of the questions sent in circulars throughout the State for gaining information by the Commission of New Hampshire, 1876, were the following (p. 52):

Can a better general system of taxation than our present one be devised?

What are the general outlines of such better system?

What changes in the present system, retaining its general form, can be made to render it more equal and more effective?

In what proportion should polls be taxed as compared with taxable property?

Should mortgaged real estate be taxed at its full value to the mortgagor and mortgagee in proportion to their interests?

How should railroad property be taxed? How deposit in savings banks?

What more effective provision of law can be adopted to prevent concealment of property to evade taxation?

What provisions can be adopted to secure equality and uniformity in the valuation of property in different towns?

Should the property of religious, educational and charitable institutions be exempted? To what extent?

Should town, county or State property be exempted?

only are officials requested to appear before the commission, but letters are often addressed to citizens of recognized ability who are well instructed in the theories of taxation and the practical working of the different forms. Sometimes the opinions of these men are placed in the report.[1] Men of all occupations are requested to present their opinions verbally or by letter. Dates are in many instances fixed when the commission will sit at certain large cities within the State, and testimony from all individuals is urgently requested.[2] Advertisements and notices of the convening of the commission in certain districts are placed in the daily papers, and every effort is made to have the whole subject thoroughly discussed. Communication is often opened up with officials of different States, so that tax commission reports and all reports upon taxation may be secured, all of which are closely examined. Not only reports on taxation, but the laws of the different States are

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Should property in mines, quarries and the like be taxed separately from the real estate in which located? and how?

How should ships and sea-going vessels and vessels navigating inland waters be taxed?

What changes should be made in the classes of personal property to be taxed.

What changes should be made in the mode of assessing or collecting taxes?

What changes should be made in school district and highway taxes?

Should towns be authorized to exempt any property from taxation?

And, generally, what improvements can you suggest in any provision of the laws touching the subject of taxation?

[1] Thus, attached to the Report of the Massachusetts Commission of 1875, were able papers by President Charles W. Eliot, of Harvard University; Francis E. Abbot, President of the Boston Liberal League; Professor A. L. Perry, of Williams College, and others.

[2] In the report of the Joint Committee of the Senate and Assembly of New York, 1893, there are nearly 600 pages devoted to the testimony taken from men representing all occupations. The Report of the Commission of the District of Columbia also contains testimony taken during investigation. See also the Massachusetts Report of 1894.

critically examined to see if they contain any principle applicable to present conditions.[1] Frequently members of the commission visit certain States, in order to study at first hand the system there in operation. In addition to the above sources, authorities on taxation, treatises and books are consulted. Every endeavor is made to present a bill to the legislature which will act as a palliative if not as a complete remedy.

The Report.—It has already been said that at the completion of its investigation the commission presents a report to the governor or to the legislature. This report is a simple compilation of the findings and recommendations of the commission. In general, the act creating the commission precedes the report proper; this is followed by a statement of the condition of taxation in the State, together with the proposed remedies for the extermination of the evils. These recommendations are formulated in the appendix in legal form and denominated a " bill." The report has, of course, no legislative force, *per se.* The report often contains a history and minute account of the working of the commission and other matters relating to taxation.[2]

When the report is passed to the legislature an order is made to distribute printed copies among the members, with a view to instructing them in the condition of the tax

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[1] The Maine Commission Report of 1890, p. 4, says: " We proceeded to collate and arrange in order an epitome of so much of the tax laws now in force in the several States as are materially different from those of Maine." The Commission of Connecticut of 1868, p. 5, said: " Many of the suggestions gathered, more especially from the tax code and tax department of Massachusetts, have been of essential service and have been incorporated in the provisions of the bill now presented."

[2] In the Report of the Commission of New York, 1862, is a digest of the mode and machinery of taxation then existing in other States of the Union. The Report of the Commissioners of New York, 1871-72, contains opinions upon the taxes of England, Wales and Paris. Local taxation in Southern Canada is discussed and mooted questions treated. The Massachusetts Report of 1875 gives the results of the study of taxation in all the States and foreign countries.

laws and the administrative machinery in constant use in the State. In addition, the report states clearly what reforms are needed and how they can be made. The opinions of the people are considered, the complaints made and the reforms demanded are closely analyzed, so that lawmakers may determine wisely the direction of future enactments. Copies of the report are distributed not only to the legislature, but also, generally, among administrative officials, and to individuals who request them. The tax official is thus informed of his neglect of duty and its consequence, and of the means to be adopted fully to perform his duty. In other words, modern tax methods are placed before the officials and antiquated or inefficient methods are discredited. Legislators, administrative officials and the interested public are informed by these reports of the progressive thought of the day respecting taxation and the reforms which are being enacted by other States and foreign countries.

Since the Civil War the State tax commission has unquestionably been an effective institution, so far as the analysis of existing tax systems is concerned. The institution has been adopted by several States, and of late years the number of commissions has greatly increased. As far as can be learned, the following commissions have been created:

1. The State Tax Commission of Connecticut, 1843.
2. The Joint Select Committee of New York, 1862.
3. The Tax Committee of Pennsylvania, 1867, consisting of Auditor-General, Secretary of State, and State Treasurer.
4. Special Tax Commission of Connecticut, 1867.
5. The State Tax Committee of New Jersey, 1868.
6. The Tax Commission of New York, 1870.
7. The Tax Commission of Massachusetts, 1874.
8. The Tax Commission of New Hampshire, 1874.
9. The Special Tax Commission of New Jersey, 1879.
10. The Special Tax Commission of Connecticut, 1880.
11. The Joint Tax Commission of New York, 1880.
12. The Tax Commission of West Virginia, 1884.
13. The Tax Commission of Connecticut, 1884.
14. The Tax Commission of Illinois, 1885.
15. The Tax Commission of Oregon, 1885.

16. The Tax Commission of Maryland, 1886.
17. The Revenue Commission of Pennsylvania, 1889.
18. The Special Tax Commission of Maine, 1889.
19. The Tax Commission of New Jersey, 1890.
20. The Tax Commission of Oregon, 1890.
21. The Tax Commission of Delaware, 1891.
22. The Special Tax Commission of the District of Columbia, 1892.
23. The Tax Commission of Iowa, 1892.
24. The Counsel (Tax Commission) of New York, 1892.
25. The Joint Committee of New York, 1892.
26. The Tax Commission of Ohio, 1893.
27. The Special Committee of Massachusetts, 1893.

CHAPTER III.

Summary of Reports and Recommendations made by the Commissions.

No one common cause, no particular event, no sudden appearance of menacing phenomena in the field of taxation can be said to have led to the creation of State tax commissions in the several States. The tax problem, always with us in some form, has waxed strong in the last half-century, and has threatened to impede social and industrial progress. In the following pages existing conditions and proposed reforms in commonwealth taxation are summarized.[1]

CONNECTICUT.

(*a*) *Tax Commission of 1843*.—Previous to the adoption of the State Constitution of 1819, Connecticut had a system comparatively free from the evils of its present tax laws. A tax was levied upon income and not upon property. Real estate was not assessed at its estimated value, but upon

[1] It will be observed that the Southern States have not created any commissions. Professor Seligman has undoubtedly given the proper explanation of this fact. "In the Southern States up to the Civil War, the interests of the large landed proprietors were still dominant. Under the Federal Constitution it was impossible for them to levy import or export duties. For a time, therefore, land, as the only source of wealth, had to defray the public charges. In the absence of industrial centres, there was little opportunity for taxation of personal property. As the need of increased revenues was felt, the landed interests attempted to secure this revenue from the few ordinary occupations carried on outside of the farms and estates. In other words, the license or privilege system was established, which levied a fixed charge on well-nigh every occupation. It was not until after the middle of the century that the general property tax was introduced; but even to-day the license or privilege taxes yield a large share of the public revenue." "Essays on Taxation," p. 20.

what was considered to be its annual earnings.[1] Houses and other structures, according to their materials, size and number of fire-places, were taxed at a rate fixed by statute. Taxation being thus regulated by statute, assessors could not attach fictitious values to property. All equalizations were performed by the General Assembly, to whom the assessment lists were returned. Under-valuations could not thus well arise. After 1819 the income tax was superseded by a property tax. With this change came difficulties and inequalities. A board of equalization was appointed in 1820, but failed in the performance of its duties, because of the other official functions of its members. In 1843 the General Assembly of Connecticut created a State tax commission to study minutely the administration of the tax laws and the effects of such administration upon the property-owners, and to report to the Assembly the changes requisite to make the tax system more just. The report was made in 1844, with the following recommendations attached:

(1) That every taxpayer be compelled to list his entire property, valuing it item by item if realty, but as a whole if personalty (except bank stock). This list must be sworn to be true.

(2) That the list be open for public inspection.

(3) That the board of equalization be abolished.

The above recommendations were not adopted by the Assembly simply because existing taxes were very light.

(*b*) *Tax Commission of 1867.*—The evils which claimed the attention of the commission of 1843 presented themselves again to the General Assembly in 1867, and led to the appointment of a second tax commission. Additional difficulties had arisen since 1843. In 1867 there was not only under-valuation, but also the escape of corporate stocks and similar property, the practice of fraud because of the exemption of debts, and the existence of inequalities be-

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[1] The best meadow land was taxed $2.50 per acre; plough land at $1.67; pasture at $1.34; wood lots at 34 cents. These were the incomes supposed to arise from the ownership of such property.

cause of the lack of supervision. The commission presented a bill with the following provisions, designed to correct the defects of the existing system:

(1) That a State tax commissioner be appointed to regulate and collect taxes due from corporations, to exercise advisory supervision over the entire administration of the tax laws, thus securing uniformity of action among the local officers throughout the State, and to cause a revaluation of all taxable property in every town in the State, by means of State assessors appointed by him. This commissioner was to hold office for five years.[1]

(2) That the tax commissioner should tax the franchise and property of all corporations by the following uniform rules: (a) mining and quarrying corporations and those dealing in lands, incorporated in the State or doing business in the State, should pay a tax of one-twentieth of one per cent. upon their capital stock at par value; (b) for other corporations than the above, the market value of the aggregate shares should be ascertained, and also the aggregate value of its real estate, after which the latter should be deducted from the former, the remaining value being taken as the true value of the corporate franchise. The average rate of taxation throughout the State should be then applied to this true value.

(3) That a board of appeal should be established wherein all questions of grievance could be heard and determined.

(4) That an annual exhibit should be made in the General Assembly of the practical operation of the tax laws; and that once in five years a full and clear exhibit of all taxable resources of the State be made to the same assembly.

(5) That debts should be no longer exempted, but that both debtor and creditor be taxed.

(6) That all property within the State, whether the owner were a resident or not, should be taxed.

(7) That savings banks should be exempted for all sums under $250 standing to the credit of any one depositor.

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[1] The Legislature did not accept this recommendation.

(8) That bonds not specially exempted should pay a tax of eight-tenths of one per cent. on par value. The State treasurer was instructed to deduct and retain one-half the tax from the semi-annual interest coupons of said bonds as they become due and payable.

(9) That the tax upon corporations should be distributed among the respective towns in proportion to the amount of stock held in these towns. Hitherto the entire tax had been paid into the State treasury.

(*c*) *Tax Commission of 1880.*—The General Assembly made no important alterations in the tax system of the State in accordance with the recommendations of the tax commissions of 1843 and 1867. In consequence the old problems recurred, and a third tax commission was created in 1880. Undervaluation of realty and the almost complete escape of personalty had become the great evils.[1] The recommendations of the commission were: (1) the assessors' term of office be lengthened; (2) that the penalty for failure to make out lists of property and for imperfect valuation be increased; (3) that a tax commissioner be appointed with revisory powers; (4) that a commission be appointed to prepare in detail for the consideration of the next legislature a complete and perfect tax law in place of the present system. The tax commissioner was to be appointed by the Governor, with the advice and consent of the Senate, for three years. Once during his term he was to visit every town and observe the administration of the tax laws. He was to be a member of the State Board of Equalization, and was to report annually to the board the results of his observations throughout the State. He was also to make an annual report to the General Assembly.

(*d*) *Tax Commission of 1884.*—Three commissions had successively studied the problem of taxation in Connecticut, yet not one of the recommendations of these bodies had been adopted by the legislature. Faith in the efficacy and

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[1] In 1875 intangible property made up only 5 per cent. of the whole taxable property.

power of the institution remained strong, and again in 1884 a commission was created. This commission submitted two reports to the legislature, one in 1886 and the other in 1887. The preliminary report of 1886 recognized the impossibility of securing true and fair valuations, especially with respect to State taxes, by the existing system, and recommended a radical change in the system of apportionment by resorting to population instead of property as the basis of contribution.[1] The adoption of this system of apportionment would prevent evasion of the tax and escape of property. Should the plan fail of adoption, the appointment of a tax commissioner was recommended, whose functions should be the same as those suggested by previous commissions.

The innovation presented in the preliminary report was not adopted by the legislature. This failure led to the presentation of a final report in 1887. It was understood that no radical change in the principles of the existing tax system would be tolerated, hence the recommendations made were merely suggestions for the improvement of the old machinery and of the old laws. The problem before the commission was very similar to that presented to its predecessors—undervaluation, escape of personalty, excessive taxes upon real estate, cattle taxed without regard to quality or value, inaccurate enumeration of houses, unjust

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[1] "To illustrate the practical working of this method of assessment, let us assume that the State tax laid on the towns by the assembly will be one and one-quarter mills on the amount of the grand lists of the State last completed. This amount is $349,977,-339, and one and one-quarter mills upon it would raise $437,441. The number of children in January, 1833, between the ages of four and sixteen was returned at 151,069. If, instead of imposing a tax of one and one-quarter mills on the grand list, the assembly should impose one of the same sum ($437,441) in gross, to be paid by the several towns respectively in proportion to the number of children of school age in each according to the last enumeration, it would require each town to pay $2.89 for each child belonging to it according to the returns. This amount would be a little more than the towns received last year from the school fund and the State appropriation, these sums amounting together to $2.30." Report of the Tax Commission of 1886, p. 12.

corporation taxes. The following recommendations were made:

(1) That a tax commissioner be appointed, with a tenure of office of four years, and with the duties prescribed in commission report[1] of 1880.

(2) That the listing system be enforced. Lists with different forms of property named upon them should be annually distributed among the taxpayers, who must return them signed to the assessor.

(3) That realty be revalued every five years, and that buildings should be assessed separately from land.

(4) That tangible personalty, because of its continual escape, should be struck from the list of taxables.[2]

(5) That money on hand be exempt from taxation.[3]

(6) That shares of stock in foreign corporations owned by residents should be exempted, in order to avoid double taxation, since such stock would probably be taxed where the incorporation was granted.

(7) That corporations issuing stock should, upon application for a charter, pay to the treasurer of the State $100, and upon incorporation and before entrance into business pay in addition an amount of money equivalent to one-tenth of one per cent. on the par value of the shares issued.[4]

(8) That every corporation, except railroads, express, telegraph and telephone companies, ecclesiastical societies, cemetery associations and corporations not exempt by law, should pay annually to the treasurer of the State a tax

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[1] Commission Report of 1887, pp. 15, 53-54.

[2] Commission Report of 1887, p. 27: One town, and that by no means the wealthiest, out of one hundred and sixty-seven in the State, paid more than one-eighth of the entire tax on bonds. Eighty-one towns returned no bonds and one hundred and twenty-one towns no stocks.

[3] The commission considered it unjust to tax money when it was bringing in no income to the owner. Had it been bearing interest, the commission would have recommended its taxation. Forty-three towns in 1885, according to the list returned, had no money on hand. Commission Report, 1887, pp. 29-30.

[4] Commission Report of 1887, pp. 31-32.

upon its corporate stock of one-fiftieth of one per cent. on the total par value of all the shares of its capital stock issued. The treasurer or cashier of the corporation must make return stating the actual par value of the capital stock under oath.[1]

(9) That every railroad company should pay annually one per cent. of the valuation made and corrected by the Board of Equalization of its capital stock and a further tax upon the par value of its funded and floating indebtedness.[2] The existing law fixed the value of the railroad property by accepting the market value of the stocks and bonds and floating debt of the company, and imposed thereupon a tax of one per cent. The cash in hand was deducted from the assessed value. The stock of a dividend-paying road has a definite market value according to the rate and the regularity of the dividends paid. The market value of non-dividend paying stock, on the other hand, is largely speculative, and the full taxation of the road becomes difficult. This led the commission to make the above recommendation.

(10) That collateral inheritances (strictly public and charitable gifts being excepted) be taxed at the rate of 3 per cent. on all legacies over $1000.[3] This tax had never been levied in Connecticut.

NEW YORK.

(*a*) *Tax Commission of 1862.*—The General Assembly of New York in 1862 by resolution appointed a select committee for the investigation of the system of taxation in operation in the State. The Senate also, in April 1862, by resolution created a special committee to examine "the assessment and taxation of this State and other States." Both committees were to report a bill to the respective bodies creating them upon the completion of their work.

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[1] Commission Report of 1887, p. 33.
[2] Ibid., p. 58.
[3] Ibid., p. 56.

These committees having about the same task before them, decided to join forces and pursue the work conjointly.[1]

New York had developed rapidly and her interests had become more varied. An agricultural State had been transformed into a commercial and manufacturing State. During this period the tax laws of the State had remained, for the most part, unchanged; in consequence some forms of property contributed while others escaped taxation. Specific complaint was made of undervaluation, escape of personalty, the fraud practiced because of the deduction of debts from value of property, and the existing method of taxing corporations. A general demand was made for reconstruction of the tax laws as a means of encouraging the introduction of large industries.

The report of the commission was submitted in February, 1863, and contained the following recommendations:

(1) That "true value" should mean "actual local market value of property."

(2) That the "listing system" be adopted and each taxpayer be compelled to list his property in detail upon oath.

(3) That the assessment roll giving the aggregate value of the property assessed be exposed to the public.

(4) That the existing board of supervisors of assessment be abolished, and that a county board of assessment consisting of three freeholders be substituted in its place.

(5) That the State assessor be elected for three years, and be required to visit, examine and value real estate in every county of the State once during five years.

(6) That the comptroller apportion the real estate between the counties.

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[1] The Joint Committee reported a digest of taxation in the U. S. under the following heads: (1) Mode and Machinery of Taxation, (2) Standard of valuation, (3) Property liable to and exempt from taxation. For their own use the committee reduced to the form of a digest the assessment and tax law of Great Britain. Yet they did not draw their recommendations from this source, as they regarded American tax problems peculiar to the States themselves.

(7) That the deduction of debts from the value of both real and personal property be allowed.

The commission was in fact opposed to deduction, recognizing the liability of fraud in consequence of such an exemption. The recommendation was made because of the demands of many influential citizens, and because of the radical change in the practice of the State which its omission would have caused. Amendments of the law were recommended, so that fraud could be in some degree prevented. Heretofore liabilities had been deducted from the assessed value of personalty and not from realty. This was clearly unjust, said the commission, and they recommended that the law be amended so as "to allow the payment of that portion of the tax levied upon real estate which is the quota representing the value of the mortgage thereon when paid by the mortgagor, to be in his hands a set-off to the payment of so much interest or principal upon the mortgage, except in cases where the mortgage, as a basis of a capital under the existing law of the State, is liable to taxation in the hands of the holder at home."

(8) That both realty and personalty be taxed, and not simply realty; but personal property deposited with savings banks and life insurance companies should be exempt to the amount of $250 to each depositor.

(9) That banking and insurance companies should not be taxed upon their aggregate capital, as provided by existing law, but upon this less all mortgages held as capital.

(10) That life insurance companies be taxed upon the amount of capital stock authorized in the charter and also upon their earnings, with deduction for the present net value of outstanding policies.

(11) That railroad companies be compelled to return a list of their taxable property in the localities to local assessors and also to the State assessors. The real estate should be assessed in their respective towns, but the personalty in that place where the principal office of the company should be located. The State assessor should apportion the aggre-

gate valuation of personalty to the sections traversed by the road. This should be added to the valuation put upon the realty.

(*b*) *Tax Commission of 1870.*—There is no evidence of any recognition by the legislature of the recommendations of the commission of 1862; certainly no check was put to the existence of the evils complained of,[1] while new problems presented themselves. One of the most important of the new problems arose from the changes made by several neighboring States in methods of assessing, valuing and exempting property, the purpose of these changes being to lure industries and capital of New York into other States.[2] In 1870 a tax commission was appointed to consider these evils. Two reports were made, one in 1871 and the other in 1872.

Report of 1871.—Two ways of solving the problems presented themselves to the commission: either reform the present system by amendment or construct an entirely new system of taxation. Under the first method the commission made the following recommendations:

(1) That a central authority be created, consisting of either a single commissioner or a board of commissioners of taxes. This officer was to be removed from political influence and the tenure perpetual. The duty of the officer was the enforcement of tax laws. Hitherto there was no supervisory council, each official executing his duty as he interpreted it.

(2) That realty be revalued when the central authority considered the evidences of error warranted it.

(3) That the listing system should not be used, nor the oath which generally accompanies it, because of its demoralizing influence.

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[1] Realty was valued as low as 20 per cent. of its true value. In 1868 it was said that 30 persons could be named whose personalty amounted to more than that reported.

[2] The States were New Jersey, Pennsylvania, Vermont, Maine and Lower Canada.

(4) That intangible property be exempted from taxation, as simply a sign of existing visible property. Especially should it be exempted when its *situs* is a matter of conflict in the laws. A direct tax should not be levied upon personalty in the hands of individuals, because it is beyond the reach of any power of constitutional law and also because it would be inexpedient. Especial objection was made to the existing practice of New York in holding that invisible property, bonds, promissory notes, choses in action, had no *situs* except with the owner, and hence only taxable where the owner resided.[1] Visible tangible property beyond the State should be exempted in full. Negotiable instruments and similar evidences of property should be taxed only where they have their *situs.*[2]

(5) That debts should be exempted in full.

(6) That mortgages should be free from all taxation, in order to stimulate building and land improvement and thus increase the visible tangible wealth of the State.

(7) That savings banks be exempted.

(8) That corporations should not be taxed so long as it is possible to do without their aid, since a tax raises the cost of production, thus increasing the price to the consumer, who finally pays the assessment.

For the adoption of a new system[3] of taxation the commission made the following recommendations:

(1) That all corporations monopolistic in nature should be taxed. This would include gas companies, national banks (to be reached through the stockholders), State banks, railroad corporations, steam and horse omnibus companies, ferry and bridge companies. Private bankers competing with national and State bankers should be assessed (the suggested tax is one upon the license). The surplus of savings banks should be taxed, and fire insurance and trust

[1] Tax Commission Report of New York, 1871, p. 46.

[2] Ibid., pp. 48-49.

[3] Ibid., pp. 52-61.

companies should be assessed on their franchise proportioned to their capital and business moderately.

(2) That a central body should be constituted in order to supervise administration.

(3) That railroads should be separated from the minor division and assessment allowed alone to the State. A number of individuals should be denominated to assess annually at a given rate the corporate franchise at a valuation equal to the aggregate market value of its stocks and funded and floating debt, less cash on hand; and that in consideration therefor the said corporation be exempt from all other taxation.[1]

(4) In order to reach personal property two plans were submitted: (a) tax the house and buildings as real estate separately, at the same rate of valuation as the land, that is, fifty per cent.; and then, assuming that the value of the house or buildings, irrespective of its contents, is the index of the personal property of the owner or occupier, tax the house or the building on a valuation of fifty per cent. additional to its real estate valuation, as the representative valuation of such personal property. In other words, the plan was to tax the land separately on fifty per cent. of its fair marketable valuation, and to tax the building apart from the land as representing the owner's personal property on a full valuation.[2] (b) Tax buildings conjointly with land as real estate at a uniform valuation; and then, as the equivalent for all taxation on personal property, tax the occupier, be he owner or tenant, of any building or portion of any building used as a dwelling, or for any other purpose, on a valuation of three times the rental or rental value of the premises occupied. Tenement-houses occupied by more than one family, or tenement-houses having a rental value not in excess of a fixed sum, should be taxed to the owner or occupier.[3] Any personal property not included in the

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[1] New York Tax Commission Report of 1871, p. 54.
[2] Ibid., pp. 54-55. [3] Ibid., p. 55.

above system was to be exempted from all taxation. The great good that would be brought about by the adoption of either of these systems of valuation, as stated by the commission, is worthy of notice. They said: "There would be freedom from multitudinous taxes, espionage and vexations; freedom from heedless official inquisitiveness and intrusions; freedom from the hourly provocation of each individual in the State to concealment and falsehoods; freedom of industry; circulation, competition everywhere."[1] This claim is almost equivalent to absolute freedom from taxation. Under these circumstances it seems hard to think that the legislature would not enact the recommendations into law.

(5) A limit should be placed upon the rate at which taxes may be levied in one year.

(6) Any person alleging unjust assessment should have the privilege of stating his claims before the assessors or tax commissioners, sitting as a board of review.

These proposed reforms were submitted to the legislature, with the desire of the commission that no action be immediately taken, so that the people might consider the effects of such a change in the tax system. This request was granted, and in 1871 the legislature authorized the same commission to report a draft of a tax code with estimates of expenses and collection thereunder. This was to be presented to the legislature in 1872.

Report of 1872.—The report of 1872 covered the same ground, for the most part, as that of 1871. The important recommendations of the report were the following:

(1) That the occupier of every building used as a dwelling or for any other purpose be taxed, whether owner or tenant, on a valuation of three times the rental value of the premises occupied.

(2) That the county boards of supervisors be prohibited from levying a tax without special authority from the legislature on any town in excess of one per cent., or in any ward

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[1] Commission Report, II, p. 59.

or city in excess of two per cent. on the total valuations of the assessment roll thereof.[1]

(3) That as few things as possible should be taxed. The "diffusion theory" of taxation was strongly affirmed by the commission.[2]

(*c*) *Tax Commission of 1880.*[3]—The reports of the commission of 1870, though made by able men and accepted as able documents, effected no legislative reform. The problem of taxation remained complicated and unsolved. Effort was again made in 1880 to provide a partial solution. In that year a State tax commission was created by the Assembly "to provide revenues for the State government by a special tax on corporations and particular classes of business, and thereby to limit the general taxes to be imposed in the local communities exclusively for the support of local governments." The endeavor was made to eliminate State taxes upon burdened real estate and to compel a larger contribution from personal estate, which had by evasion and fraud escaped taxation. The commission revised three important acts,[4] by which (1) obscurities of expression were made clear, and (2) constitutional defects considered, and (3) details of an administrative character were made more perfect. The following bills were also presented: (1) To exempt from all State and local taxation vessels registered in any part of the State of New York, owned by American citizens or corporations or organized under the laws of the State of New York and engaged in ocean commerce, and to exempt for a limited period the capital stock, franchise and earnings of such corporations from taxation for State and local purposes. (2) To tax moneyed capital (foreign)

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[1] Report of 1872, p. 44.

[2] Ibid., p. 47.

[3] The report of this commission seems to be especially scarce, as I have been unable, after assiduous effort, to secure one. I have been compelled to resort to the Assembly Documents of 1881, No. 124, which contains only a very general treatment of the work of this commission.

[4] Chapters 542, 534 and 596.

engaged in the business of banking, receiving deposits or otherwise. (3) To cause the assessment and collection of taxes on trust companies and other companies of a like nature doing a similar business. (4) To provide revenues for the State by a tax on collateral inheritances and on corporate trust mortgage securities. (5) To tax savings banks and institutions of saving, also life insurance companies. (6) To tax the manufacture and sale of liquors. (7) To tax sales of stocks, securities, cotton, petroleum and other commodities. It was also recommended that the machinery of taxation be reconstructed in order that escaping property might be reached, and that exemption of indebtedness should be abolished or made uniform and equal as to every other kind of property. And finally it was recommended that the laws be codified and made accessible to all administrative officers. By the adoption of this suggestion the commission predicted that particular localities would be relieved of the excessive contributions made to the State.

(*d*) *Tax Commission of 1892* (*The Counsel.*)—This report contained the following recommendations:

(1) That the laws should be carefully examined and the contradictory and surplus matter expunged. Emphasis was put upon this defect in the tax system.

(2) That the number of State assessors be increased to five, one from each judicial district, and that these five assessors, along with the comptroller of the State, acting as chairman, be constituted a board of tax commissioners for the supervision of all assessments and matters of taxation. Two or more of the above assessors should at least once in a year visit each county and investigate the methods of assessment and equalizations there in use.[1] This board should also appraise the property of all transportation and transmission corporations within the State, fixing their value in each district and certifying the amount so fixed to the local assessors, who would place such valuation upon the

[1] Tax Commissioners' Report of 1892, Counsel, p. 89.

assessment roll. The assessors were to adopt one rule of valuation and act in concert at all times. For the equalization of taxes in the counties it was recommended that the assessors and supervisors of the county meet at fixed dates for the equalization of rolls. A State assessor should preside at the meeting, making the decision when disagreement arose. An appeal, however, could be carried to the State board.[1] All the above recommendation was made to prevent the undervaluation and varying valuations due to the habit of assessors in using each his own method, and never acting jointly nor under supervision.

(3) That the listing system be not used, being both inquisitorial and immoral.

(4) That intangible personalty be exempted unless it could be assessed in full.

(5) That debts be deducted from both realty and personalty.

(6) That all deposits of savings banks held by any one person exceeding $1000 should be taxed as other property. The savings banks would be compelled to report annually all deposits exceeding this amount.[2]

(7) That money bequeathed to colleges, churches, charitable and other institutions be taxed as other collateral inheritances.[3]

(8) That the taxation of incomes, along with the sole taxation of corporations by the State and the local assessment of realty, should never be introduced in New York State. The income tax was rejected as inquisitorial and against the republican spirit. The sole taxation of corporations was opposed because the local divisions would be unwilling to forego the right to tax them, and moreover it

[1] Tax Commission Report of 1892, Counsel, p. 18.

[2] Ibid., p. 16.

[3] Direct inheritances of personalty to the value of $10,000 or over were taxed one per cent. of market value; other property 5 per cent. if the amount equaled or exceeded $500 on realty or personalty.

would deprive them of one of their main sources of revenue. The adoption of the above income and corporation taxes, in the opinion of some, would enable the State to exempt personalty, but the Counsel concluded that the people were not prepared to endorse such an exemption.

(9) That corporate bonds be continued on the exemption list. The Counsel refuse to recommend their taxation for three reasons: (1) Corporate bonds held in sister States cannot be taxed; (2) Bonds of those corporations could not be taxed when the owners reside beyond the State; (3) Taxation would drive corporations from the State.[1]

(10) That all foreign corporations transacting business in the State by way of transportation and transmission be compelled to pay the same tax upon their gross earnings as domestic corporations.[2]

(11) That foreign bankers be compelled to pay a tax of one-half of one per cent. on the business done in the State annually.[3]

(12) Local option, or the plan by which each locality determined the property upon which it should levy, was opposed because personalty upon intimation of taxation would be removed from the State, leaving the burden entirely upon realty.

(*e*) *Tax Commission of 1892* (*Joint Committee*).—The report of the committee was made a few weeks after that of the counsel, and though both had the same problem before them, a different solution, in some respects, was given. The committee objected to the counsel's recommendations for

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[1] Report of Commission, 1892, Counsel, p. 16.

[2] Ibid., p. 22.

[3] This business was to be ascertained thus: "First compute the daily average for each month of the moneys outstanding upon loans and of all other moneys received, used or employed in connection with its or their business done in the State by such banker, and by then dividing the aggregate of such monthly average by the number of months for which such banker shall, during the year preceding, have been engaged in the business of banking in this State." Report of 1892 Commission, Counsel, p. 97.

the taxation of savings banks and also for the equalization of assessments between the counties. The following recommendations were made:

(1) That State and local revenues be separated.

(2) That the powers of assessors be increased by vesting them with power when the occasion demanded to make an examination of the case and to summon individuals. The assessors should be permitted to place upon the roll the property of those who had either accidentally or intentionally failed to present it, but a notice must be sent to the owner of such property at least five days before the close of the inspection of the assessment roll. The assessor should also be able to change any assessment which after examination should be found to be erroneous.[1] With the increase of the assessor's power also should come an increase of the penalty for non-performance of duty. The commission recommended that under such an indictment and after proof the assessor should be disqualified from holding any public office thereafter.

(3) That the listing system be kept from the tax code of the State. It failed to uncover concealed property and tended to increase dishonesty.

(4) That personal debts be deducted from assessed value of property. Taxation of debts struck a blow at the present commercial system, which depends upon credit, and at the same time increased the cost of the necessaries of life.[2]

(5) That mortgages on realty amounting to $200 should be taxed one-half of one per cent. annually. The tax should be paid into the county treasury. The treasurer should pass the proceeds over to the comptroller of the State after deducting a commission of one per cent. for expenses and services. The mortgage tax should be paid by the holder of the mortgage, otherwise it should be void.[3]

(6) That the income tax be not introduced into the New

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[1] Commission Report of 1892, Committee, p. 19.
[2] Ibid., p. 11.
[3] Ibid., p. 12.

York system. This tax was objected to for the same reasons as given by the counsel.[1]

(7) That local option be opposed. It was denounced by the same arguments as the counsel used.

(8) That all taxes upon estates held in trust under wills be levied upon at the county probate. These estates had been escaping by being transferred from section to section, following at times the residence of the executor and then the residence of the trustees.

(9) That a graded inheritance tax be levied. A direct heir should pay on personalty at its market value, a tax of one dollar on every $100 in excess of $10,000 and less than $100,000; a tax of two dollars on every $100 in excess of $100,000 and less than $500,000; a tax of two dollars and a half on every $100 in excess of $500,000. He should be exempt from any tax on realty or income thereupon valued at less than $50,000, and when in excess of this amount a tax of one dollar on every $100 should be levied. Collateral inheritances should be taxed five dollars on every $100 of the value of property, real or personal, if equal to or in excess of $500. Religious corporations should be exempted when the bequest or inheritance does not exceed $10,000.[2]

(10) That every foreign corporation doing business in the State should pay a tax of one-eighth of one per cent. upon the percentage of its total capital stock which the business of the corporation done in this State bears to its entire business. A like tax should be paid upon each increase of capital.[3] The existing law required all corporations to make full reports to the State and provided that personal liability should follow the stockholders. To escape this provision, which if complied with would insure assessment, capital left the State for investment, but returned to reap its harvest without cost.

(11) That corporations, joint stock companies, express,

[1] Commission Report of 1892, Committee, pp. 10-11.

[2] Ibid., pp. 18-19.

[3] Ibid., p. 21 (bill).

gas, trust, electric, steam-heating, light and power companies formed or organized in the State, with the exception of savings banks and institutions, life insurance and foreign insurance companies, banks, historical societies, associations or corporations, should pay a tax on their franchise or business annually of one-quarter mill upon each one per cent. of dividends upon the par value of the stock, if the dividends amount to six or more per cent.; but if the dividends are less than 6 per cent., the tax should be one and one-half mills upon each dollar of the capital stock at its par value.[1] Domestic manufacturers and mining corporations or companies (carrying on the business alone) within the State would not be taxed as above stated if their net earnings were not in excess of 6 per cent. annually. Foreign corporations doing business in the State should pay an excise tax or license fee "upon that percentage of its total capital stock which the business of said corporations done in this State bears to its entire business."[2]

PENNSYLVANIA.

(*a*) *Tax Commission of 1867.*[3]—This commission was ordered "to revise, collate and digest all public acts and statutes regulating and relating to the system of taxation in this commonwealth for State, county, school and municipal purposes," and to recommend any changes which they thought would work an improvement in the present system. The most permanent defects of the system were found to be (1) inequalities of assessments, and (2) the inefficient and injurious mode of collecting taxes. The following recommendations were made:

(1) That assessors be appointed by the courts or some other authority under such regulations as the legislature might see proper to impose. The assessors should have

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[1] Report of Committee, 1892, p. 20 (bill).

[2] Ibid., p. 21 (bill).

[3] This report is found in "Legislative Document of 1868," pp. 345-433.

power to administer the oath to all taxpayers who submitted schedules of their property. Real property had been assessed for years, at a value ranging from one-fifth to one-half of its true value, and personalty had been escaping in large amounts. The inequalities and injustice resulting from this condition of assessment were traced to the assessors. They were at this time elected by the people, and it was postively known that they were actuated in their assessments by political motives, making distinctions in their valuations. This led the commission to recommend that assessors be appointed and not elected.

(2) That township, ward and borough collectors for State and county be abolished and the county treasurer substituted in their place in the several counties.[1]

The most important work accomplished by the commission was the revision of the tax code by the elimination of superfluous phrases, and of laws which had been repealed, and by the arrangement of the several acts under proper titles and sections.

(*b*) *Tax Commission of 1889.*—This special commission with eight members was created May 25th, 1889, and made its report in 1890. The purpose of this commission was the preparation of a "uniform revenue law covering both State and local taxation." State and local revenues were separated in Pennsylvania. In consequence, state taxes were light and the revenues sufficient, while local taxes were oppressive and the revenues insufficient. A demand was made for the increase of local sources. This demand, along with undervaluations in assessments, may be said to have led to the appointment of the commission. Four papers were presented in the report, the majority paper being signed by five members, while each of the three remaining members presented separate papers. Each paper will be considered briefly.

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[1] Legislative Document of 1868, p. 349.

The Majority Report.[1]

This report gave attention chiefly to the revision of local taxation. The bill presented was entitled "an act to provide revenues for local purposes by the taxation of real estate, personal property and corporate property." The following recommendations were made:

(1) That the listing system be strictly enforced. A number of interrogatories respecting the property to be assessed should be made to each taxpayer, but should not be answered upon oath. All tangible personalty, with the exception of water craft, should be listed where located. These lists, in order to prevent fraud, should be open to public inspection after being returned by the taxpayers to whom they were sent by the county commissioners and board of revision.

(2) That the county commissioners and board of revision of taxes not only equalize taxes in and between the counties, but also give their attention to the investigation and correction of false returns. These bodies should ascertain the number of mortgages and other obligations and report the same to the assessors.

(3) That all real estate and all tangible personalty, not essential to the transaction of the business of transportation and transmission companies, be assessed at the value it would bring if placed upon public sale. This property should be subjected to a local tax upon gross earning or income in excess of $300.

(4) That transportation and transmission companies should be subject for all personalty and realty essential to the transaction of business, to the exclusion of oil-producing and gas-producing lands and all leasehold rights therein, to a local tax of four mills on a valuation made by the State treasurer, auditor-general and secretary of internal affairs. The valuation should be made by multiplying the average valuation per mile by the number of tracks or wires or

[1] Commission Report of 1890, pp. 10-18.

mileage in the county. A heavy fine should be laid if correct reports were not made by the companies.[1]

(5) That private banks, incorporated banks and savings institutions pay a local tax of 10 mills on each dollar of their gross earnings of the previous year; that national banks pay a tax of 3 mills upon each dollar of the actual value of the capital stock, or the same as moneyed capital in individual hands. The tax received from the former banks was to be used for school purposes.

(6) That moneys and credit be required to pay the existing State tax of 3 mills, and in addition a local tax of 2 mills on every dollar of value for school purposes, with the exception of notes of issue (bank notes) and the money and credit of transportation and transmission companies.

(7) That all persons over 21 years of age not having a gross earning or income above $300 should pay an annual local tax of 25 cents. At this time the law exempted farmers from the poll tax levied upon males of 21 years of age.

Mr. Thomas McCamant's Report.[2]

Mr. McCamant presented a report signed by himself alone. He refused to sign the majority report because of the severity of some of its measures, and also because he doubted the feasibility of the plan advanced by the majority for the taxation of transportation and transmission companies. He thought an income tax would be the most uniform of any method of taxation, but would not recommend it because it would be a radical change from the existing system, because of the general popular dislike thereto, and again because it would be improperly executed. Mr. McCamant thought the local bodies should be aided in some way, as by the State relinquishing to the county its surplus

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[1] The existing law levied simply a State tax upon these companies; telephone, telegraph and sleeping-car companies paid a tax of 8-10 per cent. on gross receipts.

[2] Tax Report, pp. 32-36.

revenues and by levying a county tax "on money capital, shares of stock in corporations, subject to certain restrictions, capital invested in mercantile and commercial pursuits, moneys derived from business investments and on gross earnings of private bankers and brokers, and incorporated banks and savings institutions."[1] A bill was presented which provided (1) that the net-earnings tax on private bankers and brokers and unincorporated banks and savings institutions be repealed and a tax for county purposes on gross earnings be substituted; (2) that a full credit be allowed on the tax levied on capital invested in mercantile licenses and State tax. This bill proposed an increase of the tax on moneyed capital from three to four mills. All persons engaged in mercantile and commercial pursuits were to be subject to a tax of "8 mills upon every dollar of value of all capital in excess of $1000. Butchers, drovers and dealers in live stock were to pay a tax of eight mills on all sales exceeding $1000." For mercantile licenses and State taxes a credit should be allowed in levying this tax.[2]

The law requiring one-third of collected taxes by State to be contributed to the counties would by the recommendation be repealed.[3] The use of the oath was thought to be effective.

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[1] Report of Commission of Pennsylvania, 1889, p. 35.

[2] Report of Commission of Pennsylvania, 1889, p. 161. Mr. McCamant also proposed a reduction of the tax for State purposes from three to two mills on every dollar of value of such personal property as "mortgages, money owing by a solvent debtor, all articles of agreement and accounts bearing interest, public loans, except those issued by the State and United States, all those loans issued by, or shares of stock in, any bank, corporation, association, company or limited partnership including car trust societies and loans secured by bonds or any other form of certificate or evidence of indebtedness, except shares of stock in any corporation or limited partnership liable to the capital stock tax. All other money capital in the hands of individual citizens of the State. This did not include bank notes or even those now discounted by a banking or saving institution or trust company, nor did it apply to loan and building associations."

[3] Ibid., 168-170.

Report of John A. Wright.[1]

The most prominent reasons given by Mr. Wright for not signing the majority report were that the bill presented was unjust in principle, impracticable and unduly inquisitorial in its provisions, and in many points illegal. Mr. Wright presented three papers, which will be here considered in the order of their presentation.

(1) The first of these described the principles on which revenue laws, both for State and local purposes, should be based.[2]

State Revenues.—All State taxes should be drawn from "earnings of invested capital or real estate and not from the principal." Restrictions upon industrial investments should be reduced, and taxes only be levied when earnings reached a certain amount. This principle should apply to natural persons, corporations and business firms. The State should "have nothing to do with the question of indebtedness of its citizens or of its corporations, that being a personal affair between the parties concerned."[3] Exemption from taxation should be enjoyed only by churches, educational and charitable institutions, but even these, in case profits arise, should be taxed. Taxation should be confined to as few articles as possible and all inquisitorial taxes be abolished.[4] Mr. Wright opposed the constant use of the oath. Tax laws must be constructed and administered with justice, and the natural and artificial bodies of the State convinced of their justice; then no oath will be essential.[5]

It is recommended that all assessments be under close supervision, and that all assessors be intelligent men, not elected but appointed by "responsible officials."[6]

Local Revenues.[7]—The separation of State and local taxes

[1] Tax Report, pp. 39-62.
[2] Ibid., pp. 39-62.
[3] Ibid., pp. 40-42.
[4] Ibid., pp. 44-48.
[5] Ibid., p. 42.
[6] Ibid., pp. 45-46.
[7] Ibid., pp. 55-59.

was advocated, each being confined as much as possible to those subjects which exist in and are dependent upon either the State or the locality immediately. The following detailed recommendations were made:

(1) Real estate should be taxed upon the rental or productive value. (2) Retail liquor licenses should be taxed by the locality, since their influence is local. (3) Localities should tax " horses, mules, oxen, wagons, carriages, omnibuses, stages, and all vehicles used locally for the transportation of persons or freight." The locality is at great expense to keep the roads, bridges, &c., in good repair for the above. (4) Licenses for amusements, such as billiards and ten-pin alleys, should be taxed by localities, since they are supported by them. It will be observed that the last three classes are forms of personal property, and the report is opposed to the local taxation of personalty as a general rule; it is here proposed because of the distinctively local effect of such property.

The report suggests the levying of a poll tax upon all citizens above 21 years of age, and also exemption to the amount of $300 to all.

The difference between the views of Mr. Wright and the majority commission is readily seen. The former does not admit of the local taxation of personalty, while the latter says its object is to lighten local burdens by taxing " all tangible personal property, corporate property and the earnings on income from trades, professions, occupations and the investment of money or capital for local purposes."

(2) The second report[1] of Mr. Wright is made up of objections to the majority report. These objections are in many instances criticisms of the form of statement. It may be said that Mr. Wright does not believe that the rural class are especially heavily burdened, nor does he believe in the increased taxation of transportation or transmission companies, since increased taxes result in increased charges for

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[1] Tax Report, pp. 62-69.

public services. The majority report is further criticised as tending to revise the financial policy of the State, to drive capital from the State, to put dangerous powers in the hands of subordinate officers (county commissioners), and to bring about double taxation in many instances.

(3) The third report[1] of Mr. Wright is styled a memorandum and merely recapitulates the views put forward in the above two reports. The theory of the taxation of real and personal property is considered, and the proposed system is worked out in its effects. The taxation of natural persons, deduction from income, taxation of corporations, associations, business and manufacturing firms with and without limited liability, county and municipal taxes, licenses, assessment and collection of revenue, the method of assessing incomes, are all dealt with at length.

The Dissenting Report of Albert S. Bolles.[2]

He recommended that banks, manufacturing companies, licenses being sectional in character and influence and in many instances more easily taxed by the locality than by the State, should be subject to local instead of to State taxes. He also recommended that insurance companies of like kind, whether foreign or domestic, should be taxed in the same manner and alike. These suggestions, if availed of, together with a reduction in appropriations to charities, would improve the whole tax system. The main portion of State revenues would come from the taxation of railroads. Mr. Bolles considers the income tax a just improvement on the general property tax.[3]

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[1] Tax Report, pp. 100-136.

[2] Ibid., pp. 137-158.

[3] The whole Commission Report contains as supplementary matters:

(1) A bill presented by Mr. Rhone in behalf of the State Grange, which provides for the "assessment and valuation of all real estate, personal and corporate property for taxation for county, township, borough and municipal purposes.

(2) A report and bill from the farmers represented in the State

NEW JERSEY.

(*a*) *Tax Commission of 1868.*—This commission was created by the joint resolution of the Senate and General Assembly. The problem to be studied was threefold: (1) The laws were very confused and complicated; (2) undervaluations of property were prevalent; (3) fraud was practiced and inequalities arose because the law permitted the deduction of debts. The first difficulty resulted from the great numbers of distinct tax laws being placed together as if parts of the same law. The real meaning of the law could in consequence be ascertained with difficulty. The commission classified the various acts and expunged the inoperative measures. To solve the remaining parts of the problem, the following recommendations were made:

(1) That the assessor be compelled to take oath that he "had diligently inquired respecting the nature and value of realty and personalty liable to taxation in his township, and had to the best of his ability, without favor or partiality, valued all the said property liable to taxation at its fair and full value, at such a price as in his judgment it would sell for at a fair and bona fide sale by private contract on the day prescribed by law for commencing the assessment, and not at any lower price, such as it might be sold for at a forced or auction sale."[1] The commission also suggested to the legislature that increased salaries might improve the character of the assessors selected. The cause of undervaluation was traced to the assessors, realty being valued at from one-third to one-half of full value.

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organized Granges, stating the grievance of the farmers—the tax on land being too heavy—and also the remedies they propose.

(3) An address by the Memorial Committee of the Association of County Commissioners to the Tax Commission. The evils of the present system are given, and also some suggestions for an improvement.

(4) A digest which depicts, through tables, the tax of all the States.

[1] Legislative Document of New Jersey, 1868, p. 68.

(2) That deduction of debts be no longer permitted and the "value of the property held, whether personal or real, be made the basis of taxation."[1]

(3) That collectors of taxes be permitted to secure judgments and executions against property.

(4) That imprisonment for the non-payment of taxes be abolished.

(5) That every person with a family be exempted when his taxable property does not exceed $200 in amount.

(6) That personalty in transitu through the State when owned by a non-resident be exempted.

(7) That borrowers and lenders be authorized to make an agreement as to the payment of taxes on the loans.

(*b*) *Tax Commission of 1879.*—Ten years later the problem was still the same, the recommendations of the former commission not having been adopted by the legislature. The commission of 1879 laid emphasis upon the taxation of mortgages, the escape of intangible personalty, and the weakness of the machinery of taxation. Attention was again called to the confused state of the laws, notwithstanding the rearrangement made by the previous commission. The following recommendations were made:

(1) That real estate be valued every three years where found, and not as at present where the owner resides, and that the value of land be distinguished from that of improvement.

(2) That intangible property be taxed as at present. The commission recommended that the listing system with oath be used in securing the assessment of bonds, stocks, shares, &c. Increased valuation is the penalty for failure to value property correctly. These forms of property when issued by corporations organized under the laws of the State are to be taxed where issued. The diffusion theory of taxation was denounced as dangerous in its effects and false in principle. The commission concluded that intangible per-

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[1] Legislative Document of New Jersey, 1868, pp. 39-41.

sonalty could be reached if the machinery of taxation be repaired.[1]

(3) That deduction of debts from assessments be no longer acknowledged by law.

(4) That mortgaged premises should be taxed as all real estate, without deduction in any case; that the collector, if the mortgagor desire it, give the latter a special receipt for the proportionate amount of tax paid on account of the mortgage; that the law permit and enforce contracts between the parties themselves as to the allowance of the tax, or any part of it, on account of interest.[2]

(5) That taxes collected from the bonds, stocks, shares, etc., issued by corporations organized under the laws of the State, should be disposed of in one of two ways: either made payable to the local treasury or a uniform tax might be laid upon them throughout the State, after which the taxes could be distributed to the localities on the same basis.

(6) That the property of churches, educational and charitable institutions be exempted from all taxation as at present.

(7) That machinery of manufacturers and agricultural implements and household goods to the value of $100 be exempt from taxation.

(8) That the assessors and collectors be elected for three years; that additional powers be put in the hands of the assessors. When the assessor feels that there has been an evasion or a false return he should be empowered to apply

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[1] The machinery at this time used was the same as that put in operation in the middle of the last century, when the State made an effort to tax only tangible property.

[2] Report of Tax Commission of New Jersey, 1880, p. 22.

At this time no uniform rule was applied respecting the taxation of mortgages in New Jersey. The "Five County Act" prescribed the taxation of mortgages within certain five counties, while beyond those county lines deduction was made in the assessments for mortgages. The deduction in the latter case was permitted, but the endeavor was made to collect it from the mortgagee. When the latter lived beyond the State, the mortgagor did not claim deduction.

to the judge of the court of common pleas of the county, who should have the delinquent examined in order to obtain the true value of his personalty.

(9) That a state board of equalization be established to equalize taxes between the counties. This board would be composed of the assessors of the wards, townships and county elected by the people.

(*c*) *Tax Commission of 1890.*—The recommendations of the commission of 1890 were similar to those already made with respect to the deduction of debts and the establishment of a State board. In addition it was proposed that the State board should have the authority to enforce the listing and valuation of property and to supervise collections.

MASSACHUSETTS.

Two tax commissions have been created by the legislature of Massachusetts, in 1874 and 1893 respectively, and two reports made.

(*a*) *Tax Commission of 1874.*[1]—The commission made its report in 1875. The problem was stated as follows: Debts had been assumed too heavy for immediate payment, and this burden of taxation was imposed upon future generations. The poll-tax law was working unjustly; personal property was escaping and undervaluations occurring.

Complaints were being made against the income tax; savings banks were not fulfilling the purpose of their creation; the practice of allowing deductions from taxes because of prompt payment was opposed; there was a lack of supervision over administrative machinery; credits were evading taxation; persons by moving from section to section and

[1] The commission not only treated taxation in Massachusetts, but made a careful study of the systems prevailing in other States and countries. Taxes of various kinds were analyzed in detail. The New York Reports of 1871 and 1872 were examined and the plan proposed in them rejected. The report contains a compilation of those articles of the Massachusetts Bill of Rights and Constitution and of the amendments thereto relating to taxation and exemption.

beyond the State were escaping their assessments; the practice of exposing a detailed list of property was objected to; bank shares were unequally taxed; assessors lacked power to enable them to perform their duties; the exemption of church property, literary and scientific, benevolent and charitable institutions and agricultural societies to so great extent was opposed.

The following recommendations were made:

(1) That a law be enacted fixing a limit to the debts created by any municipality to a fixed per cent. of the assessed value of the property at present taxable. Should any debt be made without the concurrence of the legislature, the municipality must immediately start a sinking fund which would pay the principal of the debt upon maturity.[1]

(2) That poll taxes augment with the increase of expenditures and lessen with reductions, but that a maximum and minimum be fixed for the amount of the tax, the actual rate varying with the rate of the property tax.[2]

(3) That personalty be taxed. The law at this time provided for the taxation of such property, but it escaped in such large amounts that demand for exemption was made for that part of it which was not tangible. The commission advocated its taxation and seemed confident it could be reached were the machinery of taxation improved. The diffusion theory was denounced, the commission believing in the taxation of all property. To insure the assessment of personalty the three following recommendations were made:

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[1] Tax Commission Report of 1875, p. 12.

[2] An explanation of such a recommendation should be made. Poll taxes had been levied in Massachusetts since 1785, and were considered wise and just. But dissatisfaction finally arose. By investigation it was learned that the majority of voters who paid poll taxes had no property, and, in consequence, felt no responsibility in advocating expenditures. In 1874, 78 per cent. of those paying poll taxes paid no taxes on property. This condition of affairs led to the recommendation of the commission given above. Commission Report of 1875, pp. 12-19.

(4) That the governor and his council appoint a tax commissioner with authority to select one member from every board of assessors in the State. This member should report upon the condition of taxation in his section to the commissioner, who should enforce uniform valuations throughout the State.

(5) That the list containing the gross assessment of each individual be exposed to the public. It was the practice at this time to expose the list in detail, and it was thought that the practice caused many property owners to withhold their property from the assessor.

(6) That assessors be empowered to summon witnesses before the county commissioners at the expense of the civil division.[1]

(7) That a tax be levied on all incomes exceeding $1000.[2] There was an income tax in Massachusetts at this time, but it was not properly executed. The commission recommended that a central supervisory department of taxes, with agents in the municipalities, should be established to enforce the law. No deduction should be allowed for taxable property purchased with the income of the year, but a deduction from the gross income of a sum equal to six per cent. of the assessed value of the property employed in the business from which the income is derived should be allowed. Massachusetts had been levying an income tax since the early part of the seventeenth century, and until of late it had been acquiesced in as just. Its continuance was recommended in order to reach a class of property owners who would otherwise escape, and also in order to perfect or make complete the whole system of taxation in operation in the State.

(8) That savings banks, hitherto entirely exempted, be

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[1] Tax Commission Report of 1875, pp. 19-48.

[2] In 1849 exemption to amounts below $600; in 1860 exemption to amounts below $1000; in 1873 exemption to amounts below $2000; in 1873, by commission, amounts below $1000. Tax Report, 1875, pp. 48-56.

taxed on all deposits in excess of $1000 held by any one person, the rate to be the same as that on other personalty.[1] It was also recommended that savings banks owning national bank stock be taxed as any individual would upon stock held.

(9) That deduction from taxes for prompt payment be no longer permitted.[2]

(10) That "all sums of money upon which interest is paid, which are secured to the person who receives such interest, by any agreement or bond, for the sale of real estate, shall be deemed, for the purposes of taxation, money at interest, and that no money at interest or debt due a person to be taxed shall be offset or lessened by any debt due from such persons except by that amount only which such persons may owe in excess of all property held by him which is legally exempt from taxation."[3]

(11) That owners of property be taxed at that place where they resided the greater part of the preceding year. Persons who were citizens the greater part of the year previous to assessment, but had moved to another State, should be considered residents of Massachusetts if they did not obtain a new domicile abroad.

(12) That the Congress of the United States be requested to make a change in the original law, so that bank shares may be taxed by the several States in the same way and to the same extent as moneyed corporations of their own creation. The law in force at this time read: "Residents are compelled to contribute in respect of their shares in banks to the revenue of the towns where they are inhabitants, at rates greater or less than the rates at which their neighbors not owning shares in the same banks are called upon to contribute." Inequalities arose from the enforcement of this law.

(13) That the property of churches, educational, benevo-

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[1] Tax Report of Massachusetts, 1875, pp. 65-70.
[2] Ibid., pp. 71-79.
[3] Ibid., pp. 86-89, also 101.

lent and charitable institutions be, as at present, exempt from taxation. A minority report was made on this subject, and it recommended the discontinuance of the assessment and collection of parish taxes; that houses of worship having property exceeding in value $25,000 be taxed as other property; that income-paying property of literary, scientific, benevolent and charitable corporations be assessed as other property.

There seemed to be a large number of citizens favoring the taxation of the above-named property. The majority recommended that all exempted property be returned by list annually. This was required by the law at this time.

(*b*) *Tax Commission of 1893*.[1]—In 1893 a second commission was created, having before it essentially the same problem as the previous commission, since the laws had not been altered as recommended by the previous commission. Whatever is new will appear in the detailed recommendations following:

(1) That the assessor's term of office be extended to three years, so that he can become acquainted with the law. This extension of the term would also insure him continuation in office, though he performed his duties so fully as to arouse local hostility. The evil of undervaluation and escape of property was traced largely to the failure of the assessor to perform his duties because of this fact.

(2) That all citizens must list their property or suffer a severe penalty.

(3) That the municipal bonds be taxed as the law at present provides. The minority presented a report advocating exemption.

(4) That the existing law allowing the exemption of debts be repealed, and if not repealed, then modified so as to exempt the ordinary note or debt secured by mortgage. Heretofore all debts secured in the shape of notes and

[1] The commissioners were members of the Legislature and sat during the recess, making their report to the next Assembly.

bonds or other evidences of indebtedness were exempt from taxation, whether the real estate was in the possession of the party who held the evidences or in the possession of any other person who held the real estate as security for the final payment of all the evidences of indebtedness. The mortgagor escaped while the mortgagee paid the taxes and interest. A minority report was made upholding the present law, upon the claim that the change would cause the rate of interest to rise and would also involve a double tax. Both statements were denied by the majority report.

(5) That property of religious, benevolent, educational and charitable institutions be exempted from taxation, as provided by the present law. A minority report was made claiming the injustice of exemption.

(6) That shares of stock in foreign corporations be taxed. The majority report recommended the above because exemption would increase the taxes of those now already burdened, and also because exemption would offer a premium to capitalists to seek investments beyond the State, while they remained to enjoy the privileges the State affords. The minority report demanded exemption for the following reasons: (1) a share of stock is not property but merely an evidence; (2) that no one should be taxed upon anything but property actually held and protected within the commonwealth; (3) that every citizen should be free to engage in any enterprise in any part of the world.

(7) That the corporation tax on street railways be no longer distributed, but kept in the locality where the railway pursues its business. The law at this time allowed the local taxation of the real estate of the above companies, but this amount was to be deducted from the value of the stock, upon which was levied a franchise or corporation tax. The remainder after such deduction was passed to the State treasury, from which it was distributed to the sections where the stockholders resided.

(8) That the capital stock of railroads be taxed according to the number of miles of track. At this time the tax was

apportioned upon the amount of line in the State as compared with the entire line. Formerly this tax worked justly, but of late one line was made to include several tracks.

(9) That telegraph companies be taxed in proportion to the number of wires, and no longer as at present, in proportion to the number of lines.[1]

(10) That incomes above $2000 be taxed, the rate being graded. This was the majority recommendation. The minority objected to income tax because property was already assessed. To assess incomes and the property from which it was derived, the minority claimed, would be levying a double tax. The majority denied the statement, saying that the income tax would be levied upon faculty and not property, and would therefore not be a double tax.

(11) That no discount be allowed for the prompt payment of taxes.[2]

NEW HAMPSHIRE.

Tax Commission of 1874.—No report was made by this commission until 1876. The problems presented were the escape of personalty and the exemption allowed by adjacent States. Despite its water power, few large enterprises were

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[1] Tax Commission Report of 1894, pp. 29-30.

[2] There was a strongly organized single-tax league in Massachusetts, and they presented their theory to the commission. It was examined and its effects studied, after which the commission denounced the theory as impracticable and destructive for the following reasons: (1) A tax upon land would increase the cost of its products and reduce its value. (2) It would cause savings banks and life insurance companies to fail, and it is doubted if, for a time, agricultural communities would be able to raise the money demanded by municipalities. (3) There would be fewer schools and libraries, limited education, and less tender care of the aged and helpless. (4) Capital would not be invested or loaned except at a very high rate of interest on buildings; with every increase in the value of the land the value of the structure decreases. (5) It is calculated that putting the value of all land in the State (and some few improvements) at $910,000,000, the average rate of taxation would be $46.50 per $1000.

locating in the State, while many already transacting business were leaving. Much of this was thought to be due to the light taxes levied upon industries in neighboring States. The following recommendations were made:

(1) That all invisible personalty be exempted.

(2) That all manufacturing establishments and the capital and machinery essential to their working and money loaned to any town be exempted from all taxation.

(3) That the real estate of educational and charitable institutions be exempted from taxation.

(4) That taxes should fall upon those forms of property which will not leave the State if taxed and which do not contribute much to the progress of the State.

WEST VIRGINIA.

Tax Commission of 1884.—It seems that West Virginia, a State of rich resources, had not made the progress its citizens had anticipated, and the cause of such failure was a subject of investigation on the part of many interested in the State. The tax commission of 1884 was created to examine the laws of taxation and their administration. Specific complaint was made that realty was undervalued and personalty escaped; that the deduction of debts caused fraud to be practiced; that corporations (especially railways) were not paying according to the value of their property and privileges. Two reports were made to the legislature, a preliminary and final report.

Preliminary Report.—The following recommendations were made:

(1) That intangible property be exempted if it cannot be assessed in full. The commission believed in the taxation of all property and rejected the statement that the taxation of personalty would drive capital from the State. They traced the failure to assess property to the careless assessors, who permitted the taxpayer to list his property as he chose, no inspection being made as to its correctness. Hence the following recommendation.

(2) That a supervisory head be appointed with the power to inquire into and closely examine the work of the assessor.

(3) That debts and mortgages be taxed, but should they to any great extent escape, then allow full exemption.

(4) That a franchise tax be levied upon railroads and other corporations.

Final Report.—It was intended that this report should work out carefully the recommendations of the former report. The field was, however, found to be too broad and the work too great for such a result. The recommendations made in this report were made by only one commissioner (Mr. Mason), no reason being assigned for the absence of other names.

The following recommendations were made:

(1) That every taxpayer be presented with a printed list of all kinds of property, which he should fill out in detail. This list should classify property, but only the aggregates under the heads of investments and credits[1] should be exposed in detailed form to the public. Failure to list property subjected the owner to an assessment of four times its true value.

(2) That debts should be deducted from the value of property. Mr. Mason did not advocate exemption of debts, but recommended it because the people demanded it. The deduction should be made from credits only and not from investments, because a man with money at interest is able to pay a tax. To prevent fraud in this connection the following detailed recommendations were made: (a) that persons must identify (particularize) each debt to be deducted; (b) that only debts due to people within the State should be deducted; (c) that a surety shall not be exempted except

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[1] By investment is meant "money permanently withdrawn from ordinary trade and active business and placed at interest." Report, p. 8.

By credit is meant "temporary claims and demands which are created, not for the sake of interest, which may or may not be active, but for purposes of trade." Report, p. 8.

for the actual amount which he certifies that he will be compelled to pay on account of the insolvency of his principal.

(3) That merchants be taxed upon the stock on hand at a fixed date and not, as at present, upon the average stock in trade during the previous twelve months. It is impossible to tax a man on goods sold. Moreover, it is likely that the money obtained from the goods is already taxed in some form.

(4) That corporations be taxed as individuals, both upon the shares of stock and the corporation itself. The taxable value of the stock could be ascertained by finding the difference between the value of the corporation and that amount "which at six per cent. will yield the aggregate amount of annual dividends." The taxable value was to be found thus: "The aggregate of the dividends during the preceding year shall be capitalized at six per cent., the assessed value of the corporate property (wherever located and including its realty) (debts of corporations to be deducted) shall be deducted and the remainder divided by the number of shares of stock." Reports stating the amount of dividends disclosed in the previous year, the assessed value of all the property, and the number of shares issued by the corporation must be sent to a central office, which will inform the assessor.[1]

ILLINOIS.

Tax Commission of 1885.—This commission made its report in 1886. The problems presented were undervaluations of realty, escape of personalty, small amounts of taxes collected from corporations, and faulty administration of the law. The following recommendations were made:

(1) That the oath in the assessment of property be abol-

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[1] The report also contains references to tax laws and their working in other States; statistics are given to demonstrate the evils existing in West Virginia and also to make clear the effects of the recommendations proposed. The recommendations of tax commissioners in other States are noted.

ished, its effects having proven more detrimental than beneficial.

(2) That the township assessor be removed and a county assessor substituted. This assessor should hold office for four years and be ineligible to re-election. These officials should be provided with offices which should be open at all times. With the consent of the county board they should appoint three deputies, for whom they are held responsible. After assessment the assessor should make oath that he had endeavored to do his full duty, valuing property at its cash value. The commission proposed the division of the county into small tax districts for assessment, and the preparation of maps to exhibit the boundaries and to show the property of taxpayers, so that individuals could compare their assessments with those of their neighbors.[1] The county assessors were directed to assess local corporations with reference to their purpose.

(3) That State and local revenues be separated. Railroads, telegraph, telephone, express and insurance companies should constitute the objects of State taxation. If a deficiency occurred, the counties must come to the rescue, while on the other hand if there was a surplus it must be distributed among the counties.

(4) That a supervisory body be appointed by the governor, to be called the State Board of Tax Commissioners. It should consist of six persons, no more than three being of the same political party, and the auditor of the State being an ex-officio member. The duties of the body should be (1) to present forms for the use of the assessors; (2) to construe the revenue laws for revenue officers and to instruct them in regard to their duties; (3) to see that taxable shares of stock were assessed; (4) to see that assessment be made according to law; (5) to see that taxes were collected; (6) to enforce penalties and fines; (7) to estimate, when necessary, the amounts required of the several counties to meet

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[1] Tax Commission Report, 1886, pp. 6-7.

appropriations of the General Assembly and certify the same to the counties; (8) to examine all books made subject to inspection; (9) to see that each county was visited as often as once in two years by at least one member of the board and the operation of the law noted; (10) to report to each Assembly and to make such recommendations as were deemed best; (11) to act as a board of review to whom appeals from the county boards could be taken.[1]

(5) That quasi-public corporations be taxed upon their capital stock. The actual value of all the shares of stock of every such company should be determined, and to the aggregate value of the stock should be added "the actual value of all the indebtedness of the company, except that incurred for current expenses, and the sum thus obtained should be deemed the aggregate value of the entire property and franchises of such company for the purposes of this act, and the sum by which the said aggregate value exceeded the value of the tangible property of such company should be the taxable value of the franchise hereunder."[2]

The State board of county commissioners by the existing law assessed the above corporations, but the commission made it the duty of the county assessor.

(6) That banking institutions, other than national banks, should return their capital listed in the several stated forms, namely, personal property, credits, stocks and bonds. National bank stocks should be assessed where the bank was located in order to assess all shares.[3]

(7) That railroads be taxed on five times the amount of gross receipts at the average rate throughout the State. The tax was to be levied upon gross and not net receipts, because the entire property of the railroad would be reached by taxing the latter, while individual property is not wholly assessed; also because net receipts seemed to be decreasing

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[1] Tax Commission Report of 1886, p. 13.

[2] Ibid., p. 7; also Bill, p. 12.

[3] Ibid., p. 8.

as compared with gross receipts. By "gross receipts" was meant those of a road entirely in the State or of the State portion of an interstate road. The gross receipts of an interstate road could be determined by dividing the entire business of the road by the miles of track. The rate could not exceed five per cent.[1]

(8) Telegraph companies should pay "seventy-five cents for every mile of wire owned and operated or controlled in this State for toll or hire"; telephone companies should pay "two dollars on each instrument"; express companies should pay "two and one-half per cent. of the gross receipts"; public warehouses should pay "one-third of one cent. for every bushel of capacity of each elevator or granary"; and all persons or corporations owning, leasing or managing any public warehouse should pay $5 a year for license; insurance companies should pay "a tax of two per cent. of the gross amount of premiums received by it on the policies, after the amount of premiums returned on cancelled policies had been deducted therefrom."[2]

(9) That a maximum rate of taxation should be fixed. The commission recommended the rate on $100 as follows:

For county purposes other than roads and bridges	$0.25
For city, incorporation, town and village purposes, except schools	0.50
For educational purposes	0.50
For school buildings	0.75
For roads and bridges	0.20
For park purposes	one-fourth of present rates
For all other purposes	one-fourth of present rates

Municipalities should not be able to make debts exceeding two per cent. of the assessed valuation.[3]

(10) That non-taxable government securities be listed, in order to prevent the concealment of property by temporary conversion into such securities.

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[1] Tax Commission Report of 1886, p. 10.
[2] Ibid., bill, p. 67.
[3] Ibid., pp. 12-13.

OREGON.

(*a*) *Tax Commission of 1885.*—A majority and minority report were presented by this commission in 1886. Undervaluations of realty,[1] escape of personalty, fraud resulting from the deduction of debts from valuations, light taxes upon corporations, and poor administration of the laws may be said to have made up the problem which the commission had to investigate. The following recommendations were made:

(1) That all property be listed.

(2) That the county court district the counties, allowing the assessors a deputy for each district except in his own, subject to the approval of the court. Assessments should be completed within two and a half months.

(3) That the county board of equalization be composed of the county commissioners. Hitherto the assessors formed the board.

(4) That the State board of equalization be made elective and its members chosen from each judicial district. Its duties should be to equalize taxes between the counties, and its members should hold office for four years.

(5) That the county treasurer act as collector of taxes. Heretofore the sheriff, school clerk and road supervisor made the collections.

(6) That all land patents issued by the United States and by the State be annually returned to the county clerk; that plats be made of all the land granted, giving the owner's name. It was difficult to know when the tracts had been granted or to whom they had been granted. This realty of course escaped all taxation.

(7) That no mortgage be deducted from the value of the land in assessing it, but that the full cash value of the land be ascertained and then apportioned between the mortgagor and mortgagee in proportion to their respective interests. This recommendation was made because the mortgage was

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[1] From one-half to one-third of its true value.

assessed separately from the land and at full value, while land was undervalued constantly.

(8) That credits be taxed after deducting debts. The commission was opposed to the taxation of credits, but recommended taxation, because the constitution of the State would not allow exemption. Credits were looked upon as representing visible property, hence to tax both would constitute double taxation. Moreover, credits escaped taxation in large amount by the creation of fictitious debts.[1]

(9) That insurance, telephone, express, sleeping car companies, electric light, plank board, turnpike, wagon, road and bridge companies be taxed three per cent. upon their gross receipts. This tax should be levied upon all corporations not incorporated under the State laws, and should be known as the license tax.

(10) That a State tax of two per cent. be levied upon gross earnings of railroads, to be paid into the State treasury. The realty and personalty utilized by railroads should be exempt. Realty not used in the operation of the road should be taxed as any other real property.[2]

(11) That an effort be made to bring about the separation of State and local revenues. If these recommendations were followed the separation would be accomplished.

The commission did not believe in the taxation of invisible property, but recommended its taxation because of the constitution of the State. A minority report was made which objected to the deduction of debts, especially of deductions from credits alone. The minority also objected to a tax on the gross earnings of railroads because they were not strongly enough established.

(*b*) *Tax Commission of 1890.*[3]—This commission presented a majority and minority report in 1891, dealing with the

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[1] Tax Commission Report of 1886, pp. 7-9.

[2] Ibid., pp. 10-13.

[3] By a resolution of the Senate, a committee from that body was created a special committee.

same problems as the previous commission. The following recommendations were made:

(1) That deduction of debts in any form be no longer permitted.

(2) That the mortgage tax law be repealed, but if not abolished, then let the "California method" of taxing be adopted. That is, assess "the mortgagee as an interest in the land and the estate of mortgagor as an interest also." The mortgagor could pay the tax and set it off against the debt, requiring payment of taxes before permitting a mortgage to be cancelled, one time and place being fixed for the payment of all mortgage taxes.[1] The minority opposed the repeal of the mortgage tax law.

(3) That corporations pay a gross receipt tax.

MARYLAND.

Tax Commission of 1886.—This commission was composed of five members and made its report in 1888, together with a minority report by Dr. R. T. Ely. The problems confronting the commission were undervaluations in realty, escape of personalty, weakness of the administrative machinery, failure of corporations to contribute according to their ability, exemption of mortgages, fraud practiced because of the exemption of debts. The report called attention to two important features of taxation in Maryland: (1) the appointment of assessors by the governor, county commissioners or municipal authorities, and to (2) the assessment of State and county taxes on the same basis by one set of assessors.

The following recommendations were made by the majority report:

(1) That realty be valued every six years in the counties and every three years in Baltimore City; that personalty be assessed annually, and that a schedule be prepared for the return of such property. There had been no general assessment in Maryland since 1876.

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[1] Tax Commission Report of 1891, p. 5.

(2) That visible and tangible personalty (chattels), the public securities of other States and nations, bonds and stocks of non-resident corporations, individual securities, debts and mortgages on property outside of the State,[1] all be returned to the assessor. Exempted property should also be returned. The returns must be signed by the owner of the property, but the oath is not to be applied. False returns should subject the offender to imprisonment.[2] When no return is made the assessor should have power to value the property, adding ten per cent. to the valuation.

(3) That each county have a treasurer, chosen by the county commissioners or elected by the people. This treasurer should choose the assessors, who with him would form the board of county assessors. This device would, it was hoped, separate the assessor from political influence. The assessors should be appointed from each election district, and in order to secure uniformity in valuations they should be required to return their valuations to the board of county commissioners, who would compare all the assessments made in the county. The county treasurer should inform the assessors of the meaning of the true value. The returns were to be filed with the treasurer, who should separate the taxable from the non-taxable and return the list to the county commissioners.[3] The commissioners should receive appeals from persons dissatisfied with their assessment. The recommendation was made that taxes in Baltimore should be paid semi-annually, January and July.

(4) That counties continue to levy taxes upon the realty and personalty of railroads, but without reference to the additional value of their franchise or privilege and profits of

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[1] Tax Report of 1888, p. 80.

[2] The term prescribed was for not less than one year and not more than 10 years.

[3] By the new assessment law of 1896, the county commissioners appoint the assessors in the election districts, and these commissioners also sit as a board of revision and appeal in the counties. In the city appeals are made to the boards of review and control, such boards being appointed for every four wards.

business;[1] that the State impose its general levy upon the property; that the company pay a "license privilege tax measured by gross receipts of the road," and increasing with the earnings per mile in the following way: "one per cent. on the first $1000 a mile of gross earnings, or on total earnings if they are less than $1000 a mile; two per cent. on the first $1000 or part thereof above a $1000 per mile; three per cent. on the first $1000 or part thereof above $2000 per mile; four per cent. on the first $500 or part thereof above $3000 per mile; and five per cent. on all gross earnings in excess of $3500 per mile."[2]

(5) That a gross receipt tax be levied upon telegraph companies at the rate of two per cent.; on telephone, express, title insurance, safety deposit, trust, parlor car and sleeping car companies at the rate of three per cent.; on domestic insurance companies at the rate of one per cent.; on foreign insurance companies at the rate of one and one-half per cent.[3]

(6) That other corporations and banks be compelled to pay "license taxes," consisting of a tax on net profits and a gross receipt tax, and applied in the following manner: When the dividends upon par value of the capital stock equals or exceeds six per cent. for one year, the tax rate is to be one-half of a mill upon the capital stock for each one per cent. of the dividends, or, in other words, the corporation would pay 5 per cent. on dividends. But when the

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[1] Report of the Commission of 1888, pp. 38-56.

[2] Tax Commission Report of 1888, p. 39. The Baltimore and Ohio and Northern Central Railroads are by contract exempted from the taxation of their realty, personalty and franchises, in return for a tax of one and one-half per cent. on gross receipts in the State. The other Maryland companies also enjoy great privileges. The commission calculated that the B. & O., the Northern Central, the Philadelphia, Wilmington and Baltimore, and the Western Maryland Railroads annually escaped taxation to the amount of $300,000, or more than one-third of the entire State taxes. The report suggested several ways in which charter exemptions could be set aside.

[3] Tax Commission Report of 1888, pp. 56-57.

dividends do not amount to 6 per cent., or even when none are declared, the rate is to be three mills upon each dollar of a valuation of the capital stock made by the State tax commissioner. Profits made by a corporation and placed in the sinking fund are to be dealt with as dividends.[1]

(7) That foreign corporations should pay the same tax that Maryland corporations pay in other States. The taxes collected from corporations should accrue to the State treasury, but the counties should be permitted to continue to tax the realty and personalty in their boundaries.

(8) That mortgages, as heretofore, be exempted from taxation.[2]

(9) That debts be not deducted from value of property.

(10) That no discount be allowed upon the prompt payment of taxes.

(11) That savings banks continue to pay county and State rates on one-half the deposits earning three per cent.[3]

(12) That churches and houses used exclusively for public worship, and the furniture therein and the ground necessary for the uses of the church not exceeding 10 feet on either side of such house, be free from all taxation.

(13) That educational, literary, benevolent and similar institutions be taxed if not under the control of the State.

(14) That a merchant be taxed alone on the actual worth of his stock, whether bought on credit or not, but not on his book accounts. The average stock held during the year should be used as a basis for the calculation of actual worth. The law at this time compelled a merchant to pay taxes upon the value of his merchandise and also upon book accounts.[4]

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[1] Tax Commission Report of 1888, pp. 38, 56-65.

[2] By the new assessment law of 1896 mortgages are taxed at the rate of 8 per cent. annually upon the gross amount of interest. This is to be paid by mortgagee on oath that he will not shift it to the mortgagor.

[3] Tax Commission Report of 1888, pp. 86-88.

[4] The new assessment law of 1896 exempts "the book accounts or bills receivable, or evidences of debt given for such accounts, of

Dr. R. T. Ely's Minority Report.—The majority report was based upon the present constitution, while the report of Dr. Ely recommends an entirely new system, irrespective of previous practices or laws.

The following recommendations were made:

(1) That mortgages, promissory notes, book accounts, simple contract debts, and other "private securities," and other intangible personalty be exempted from taxation.

(2) That a State income tax be levied in order to make up for the deficiency left by the exemption of real estate from any other than local taxation. The rate suggested was one per cent. upon all incomes exceeding $600.

(3) That State and local revenues be separated, and that real estate constitute the main subject of local taxation; corporations that of State taxation.

(4) That realty be valued every three years to avoid unfair valuations.

(5) That railroads be taxed as recommended in the majority report. Failing in the acceptance of this method, the adoption of the "Wisconsin method" of levying a license fee, varying with gross earnings per mile, was recommended.[1]

(6) That the legislature refuse to grant charters to private corporations for the supply of gas, water or electric light, but that such functions be assumed by public enterprise. It was also recommended that municipalities endeavor to purchase existing private gas works. Should a charter be granted to a private corporation, the franchise should be sold at auction for a limited term of years. In the case of street car franchises, sale at public auction for a term of 15 years to the party who would guarantee the greatest percentage of gross receipts was recommended. The local authorities should retain the right to purchase the equipment

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any person engaged in commercial business who is taxed upon a fair average value of his stock of goods, wares and merchandise." Ch. 120, Sec. 4.

[1] Tax Commission Report of 1888, pp. 189-190.

of the company upon the expiration of the term, and place the franchise on sale again. Should the local authority be unable or unwilling to purchase the property, the franchise should be sold with the provision that the purchaser must also purchase the property of the present company at an appraised valuation.[1]

7. That an inheritance tax be levied, at the rate of one per cent. upon direct inheritances exceeding $1200 and five per cent. upon collateral inheritances exceeding $12,000.[2]

(8) That a business tax of 10 per cent. be levied upon the annual rental value of all stores, offices, manufacturing establishments and places of business, and that the merchandise, plant and furniture of these places be exempt from further taxation. Four-fifths of the proceeds of this tax should be given to the counties and municipalities and one-fifth to the State.[3]

(9) That the number of liquor saloons be limited in the cities to one in every 2000 people, and in the counties to one in every 1500 people; that cities and counties be divided into liquor districts; that licenses be awarded at public auction, and that the entire sale of liquor be determined by local option. Wholesale liquor dealers should pay $1000 for a license, and the rental value of the place of business should be taxed at the rate of 25 per cent.[4]

(10) That educational and benevolent institutions be exempt, whether controlled by the State or not.

(11) That the constitutional provisions prohibiting the State from engaging in any work of internal improvement and making necessary the present method of taxation, be submitted to the people for repeal.

(12) That the recommendations of the majority for the assessment and collection of taxes be adopted, except that in the city the collection of taxes be quarterly instead of semi-annually.

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[1] Tax Commission Report of 1888, pp. 165-170.
[2] Ibid., pp. 183-186. [3] Ibid., pp. 186-188. [4] Ibid., pp. 170-171.

MAINE.

Tax Commission of 1889.—The problem presented the usual conditions of undervaluation of realty, escape of personalty, faulty administration of laws, failure of corporations to pay according to ability, and the objectionable working of the mortgage tax.

The following recommendations were made in the report of the commission submitted in 1890:

(1) That the listing system be strictly applied with accompanying oath and public exposure of the list.

(2) That a supervisory body be appointed by the governor, with the consent of the council, composed of three State assessors, holding office for six years. One of the associate members should be selected from each of the leading political parties. It should be the duty of this supervisory body to assess such corporations as pay their taxes directly to the State, to apportion State taxes authorized by the legislature, to enforce the laws, and to act as a State board of equalization, sitting biennially.

(3) That State assessors should continue in office three years, in order to insure the retention in office of the assessor who had faithfully performed his duty.

(4) That the law be changed so as to bring out more clearly the duties of the assessor and to define true value of property.

(5) That an effort be made to separate State and local revenues, but without involving the entire dependence of the State upon the corporation tax. The taxation of corporations by the State alone was opposed as tending to break the "financial ligament" uniting local and State government and to extend the powers of corporations.[1]

(6) That corporations of a speculative character be required to pay a franchise tax of one-tenth of one per cent. upon the par value of their capital stock, and also an organization tax, before beginning operation, dependent

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[1] The Tax Report of 1890, pp. 55-58.

upon the amount of capital.[1] These corporations under the present law had been escaping almost all taxation.

(7) That railroads pay a gross receipt tax per mile, the rate increasing one-fourth of one per cent. with every $750 of gross receipts per mile. The existing law provided for the same tax, but fixed the maximum rate at three and one-fourth per cent. Realty and personalty were still to be taxed locally.

(8) That savings banks, trust and loan institutions pay a tax of one-half of one per cent. annually on all investments, deposits or loans made in the State, and one per cent. on those made beyond the State.[2] Hitherto savings banks were paying three-fourths of one per cent. on deposits, while trust and loan institutions were exempt.

(9) That foreign insurance companies doing business in this State pay an annual tax of two per cent. upon all premiums received on contracts made in the State for insurance.

(10) That domestic life insurance companies pay a tax on their realty where situated, and in addition a State tax annually of two per cent. on all premiums received from residents in the State and also a tax of three-fourths of one per cent. on its surplus.

(11) That inspectors representing unlicensed insurance companies be subject to a license tax of $20, to be obtained from the insurance commissioner. A heavy penalty was imposed for neglect. Agents of insurance companies were required to pay an annual fee of $2.[3]

(12) That the mortgagor and mortgagee be taxed as joint owners of the real estate in proportion to their interest.[4]

(13) That a collateral inheritance tax of two and one-half per cent. on all amounts exceeding $500 be levied. Probate

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[1] A capital not exceeding $5000 was to pay a tax of $25; one more than $10,000, and not exceeding $100,000, $50, etc. Tax Commission Report of 1890, p. 137.

[2] Ibid., pp. 72-82.

[3] Ibid., pp. 68-70; also Bill, pp. 130-133.

[4] Ibid., pp. 46-49.

judges should return to the State assessors semi-annually statements of such property.

(14) An income tax was characterized as incapable of practical application.[1]

DELAWARE.

Tax Commission of 1891.—The Farmers' Institute of Delaware met for the consideration of taxation in the State and formulated a bill which was later presented to the General Assembly. The opinions expressed in the bill failed to impress the Assembly, but resulted in the creation of a commission in 1891 for the investigation of the system of taxation in the State. No work was done by the commission until the following year, when two reports were submitted.

First Report.—The existing system of taxation in Delaware provided for the separation of State and local taxes. State revenues were adequate, but local revenues were insufficient, despite the fact that local taxes weighed heavily upon real estate. This latter was the real cause of the appointment of the commission. The first report of the commission traced the cause of the burdensome taxation to the laxity of the assessors, and recommended that a "proper tribunal" be established to arrange and adjust the assessments throughout the respective counties.[2] Heretofore the levy courts were vested with this duty, but their tasks were too numerous and their time too limited to insure a proper revision of the assessments. Although recognizing a large escape of intangible personal property, the commission objected to its entire exemption.

The Second Report of the commission was made up largely of extracts from reports of commissioners in other States. From a study of these the conclusion was reached that Delaware had about as perfect a system as could be obtained. No recommendations were made, but the commission emphasized the truth of the "diffusion theory" of taxation.

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[1] Tax Commission Report, 1890, pp. 35-37.
[2] First Commission Report, p. 6.

DISTRICT OF COLUMBIA.

Tax Commission of 1892.—The House of Representatives created this body and the Speaker appointed its members. The grounds of complaint were the undervaluation of real estate in the absence of a common rule of assessment, and the escape of invisible personalty.[1]

At the time of the appointment of the commission the assistant assessors were appointed by a board of three commissioners. It was discovered that these assessors had no rule of valuation, and also that their work was done for the most part in secret. These assistant assessors, together with a chief assessor, formed a board of equalization, and as was to be expected they upheld their own assessments. The following recommendation was made:

That the board of equalization be changed so that its members should consist of one responsible officer, who should be assisted by a prosecutor, both holding office for one year and appointed by the President of the United States. This board was empowered to make assessments, to increase or diminish assessments and summon those before it whom it deemed necessary to a proper performance of their duties. The prosecutor was to appear and argue cases before the board in the interest of the District and the United States Government when assessments were appealed. The prosecutor could call the attention of the board to errors at any time. These so-called trials were to be held publicly; the journal of the board was to be open for examination, and the board was to remain in constant session.

The commission endeavored to formulate some plan of taxation by which adequate revenues could be secured in a fair way without tending to put a check upon improve-

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[1] Valuations varied from one-half to full value; especially were inequalities to be seen in the valuation of business houses and residences and land held for speculative purposes. Fine mansions were assessed, it was claimed, far below their value; cottages at their true value.

ments. One method of taxation was presented, but it had the endorsement of only a single commissioner. This method was to levy a tax solely upon the rental value of land and to exempt improvements of all sorts.[1]

IOWA.

Tax Commission of 1892.—The commission was created by the General Assembly and was appointed by the executive council. A report was submitted in 1893. The tax law existing in 1892 required that realty be " assessed at its true cash value, having regard to its quality, location and natural advantages, the general improvement of the vicinity, and all other elements of its value "; that " depreciated bank notes and the stock of corporations shall be assessed at their cash value "; and that credits shall be listed at such sums as the person listing them believes will be received or can be collected thereon, and annuities at the value which the person listing them believes them to be worth in money." The failure to enforce the provisions of this statute led to the creation of the commission, and the problem of its study grew out of this failure. Undervaluation, escape of personalty, fraud arising from deductions of debts, were the specific topics considered.

The following recommendations were made:

(1) That the board of supervisors define the assessment district and appoint associate assessors. These assessors should take the place of township trustees and members of the town council in the equalization of taxes. They should remain in office five years and value realty every fifth year instead of, as heretofore, every year. The assessors should be selected from different political parties. They, with the associate advisory, should compose the State board of equal-

[1] The report contains comparisons of assessments under the present and the proposed scheme in the form of tables. It was calculated that 59 cents on the $100 would provide sufficient revenue for municipal expenses.

ization. Provision should be made for a county board of equalization.[1]

(2) That State and local revenues be separated.[2]

(3) That debts, including mortgages, should not hereafter be deducted from the true value of property.

(4) That corporations continue to pay the present tax of one-quarter of one per cent. upon the amount of their authorized capital stock.[3]

(5) That an inheritance tax be levied upon both direct and collateral inheritances. Property passing to direct descendants or to some charitable or public institution should be exempt when the inheritance did not exceed the value of $25,000 in personalty or $100,000 in realty. In the case of personalty all amounts exceeding $25,000 should be taxed one per cent., while an additional one per cent. should be exacted for amounts in excess of $100,000, $300,000, $500,000, and $1,000,000 respectively. This would make the rate five per cent. upon all amounts exceeding $1,000,000.[4] In the case of realty all amounts exceeding $100,000 should be taxed one per cent.; an additional rate of one and one-half per cent. on amounts in excess of $500,000; and an additional rate of two and a half per cent. on those in excess of $1,000,000, making a total rate of 5 per cent. on the excess over $1,000,000.

Collateral inheritances should pay a tax of 5 per cent. of the value of the inherited property when more than $2000 and not in excess of $50,000; of seven per cent. on amounts exceeding $50,000 and not in excess of $100,000; and of ten per cent. on amounts exceeding $100,000. The inheritance tax should be paid to the county treasurer.[5]

The single tax theory was opposed as radical and un-American.

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[1] Commission Report of 1893, p. 7.

[2] This recommendation did not appear except in the bill, nothing being said of it in the body of the report. Commission Report of 1893, p. 11.

[3] Ibid., Bill, p. 47. [4] Ibid., p. 15. [5] Ibid., p. 43.

OHIO.

Tax Commission of 1893.—The commission made its report in December, 1893. The problems confronting it were undervaluation and escape of personalty, due in large part to the neglect of the assessor, and failure of corporations to pay according to their ability.

The following recommendations were made:

(1) That the tax inquisitor law be abandoned.

(2) That the existing decennial State boards of equalization of realty, the annual State board for the equalization of the shares of incorporated banks, the board of county auditors for the valuation of railroad property, the annual State board of equalization for railroads, and the board of appraisers and assessors of express, telegraph and telephone companies, all be abolished and in their stead a State board of assessment and equalization be provided. It was also recommended that the county decennial board of equalization of real property, the city decennial board of equalization of real property, the county annual board of equalization, the city annual board of equalization, the county auditor in receiving returns of corporations, township and ward assessors in correcting false and erroneous returns and in listing omitted property, all be displaced by the county board of assessment.

The members of the State board should be appointed by the governor for six years, and should appoint the county board for the same number of years. The county board should appoint ward assessors, while township assessors should be elected by the people. The State board should appraise the property of railroad, telegraph, telephone, express, transportation and transmission companies.

(3) Real estate should be valued every five years.

(4) That State and local revenues should not be separated.

(5) That a business tax, to be called a franchise tax on net earnings, should be levied upon all corporations, domestic and foreign, except manufactures and mercantile enterprises. This would equalize taxes and secure a contribution

from those corporations which gave little or no evidence of ability to pay existing taxes.[1]

(6) That the general property tax be levied, as at present, upon railroads, and an additional franchise tax be imposed upon all the gross receipts of the railroad. When the gross earnings accrued from interstate business, that part taxable should be ascertained by dividing the gross earnings by the entire mileage and then multiplying this result by the number of miles in the State.[2]

(7) That foreign corporations should be exempt from taxation.

(8) That the inheritance tax be employed in order to reach some intangible personalty hitherto escaping. The commission did not name a rate nor the amounts to be exempted.

(9) That municipal bonds, mortgages, money and stock in foreign corporations be exempt.[3]

(10) That deeds, mortgages, chattels, leases, wills, petitions for appeal and in error, transcripts of judgments, and similar instruments and privileges of commencing an action be subject to a small tax.[4]

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[1] Commission Report of 1893, pp. 47-51.

[2] The valuation of railroads in 1878 was higher than in 1892. Report, p. 60.

[3] Ibid., p. 64. [4] Ibid., p. 62.

CHAPTER IV.

Results of the State Tax Commission.

In estimating the results of the work of State Tax Commissions in the United States one must remember that the problem of taxation, as it presents itself in the American commonwealths, offers far greater difficulty than that involved in the formulation of a correct theory of taxation. Not only must the theory of taxation be sound, but it must conform to the precise industrial conditions existing in the State. The application of a theory or a principle correct in itself does not insure that justice and equality will follow. Past habits, present laws, popular feeling and actual conditions within each State must be considered before any new principle is applied, if the progress of the State is to be aided.[1] The difficult task of the commission has thus not been generally appreciated. However, it may be said that commissions have performed a twofold service: (1) they have achieved specific results themselves, and (2) they have recommended changes for the legislature to make in the laws respecting taxation.

Specific Results Achieved.

(1) The commissions have exhibited the actual working of the general property tax and have given abundant proof

[1] The writer, from reading the reviews of the reports of the commissions by Prof. E. R. A. Seligman in the "Political Science Quarterly," comes to the conclusion that the reviewer does not appreciate fully the practical difficulties with which the commissions have had to deal. They have not only to know that certain taxes seem just and are applied in other countries with satisfaction, but must study the industrial conditions of their own State and adopt that system which will not in any way interfere with prosperity, and which is, at the same time, in accord with the feelings of the people.

of its unfairness. Their reports have shown that uniformity of taxation does not exist, and that valuations vary in every State; that taxes are not universal, and that personalty in vast amounts escapes; that the greater the effort to secure equality the more universal does deception become; that taxes are becoming regressive, that personalty contributes less and less taxes each year, and that real estate is unfairly burdened in consequence; that double taxation occurs by reason of the taxation of property and credits, of book accounts and merchandise in stock.

(2) The tax laws of almost every State are confused and complicated, clothed in obscure language and weighted with superfluous words and phrases. Amendments and supplements to amendments, laws of repeal or alteration have been mingled together in the accumulation of years of legislation, making it extremely difficult for administrative officials to ascertain in full their duty. Contradictions also appear frequently.[1] Tax commissions in several States have codified the laws, expunging all contradictory and irrelevant matter.

(3) They have furnished information to the legislative bodies as to the actual working of taxation in the several States, giving them thus a safe basis of information for the construction of new laws or the alteration and revision of old ones. Our present industries have grown with the laws, hence great thought and care must be exercised when the alteration of these laws, in however small a way, is in contemplation, for even an anticipated change might spread disaster throughout the State by causing industries to leave the locality in order to escape the prospective tax or increased taxes. It has been the custom of legislators to in-

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[1] New York Tax Commission Report of 1871, p. 9; also 93 (counsel), p. 5; Massachusetts Tax Commission Report of 1894, p. 1; New Jersey Tax Commission Report of 1869; New Jersey Tax Commission Report of 1880; Pennsylvania Tax Commission Report of 1867 (legislative document), p. 346; Maine Tax Commission Report of 1890, pp. 5-6; New Jersey State Board Report, 1892, p. 34.

vestigate problems coming before the legislature individually, each seeking his own information and voting for revisions of the law upon conclusions drawn from such imperfect investigation. Especially is this true when questions of taxation come up for consideration. The greater and more flagrant evils may be ascertained, but those smaller ones, from which the larger have their evolution, are not observed. Under these conditions the reports of the State Tax Commissions became of service. These commissions extend their inquiries into every district of the State, consulting officials and private citizens as to the operation of the law in their own locality. The results of the examinations are presented to the legislature, and with them also the opinions of the commission, based upon a study of the tax problem in the State and in other States, and upon knowledge gained from specialists.[1] Many of these opinions are weak and open to severe criticism, but this does not destroy the value of the work of the commission. The legislature has the problem, as it exists, stated clearly in the report, and they may discard the conclusions of the commission or arrive at far different opinions, from the same materials. It is the report which is of prime importance, for it presents the evils to be considered and what changes can be made under the present State constitution.[2]

(4) They have more fully instructed administrative officials in the performance of their duties, and have acquainted the public mind with taxation as it is conducted in the State. After the report of the commission is made to the legislature

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[1] Iowa Tax Commission Report, 1893. Sec. 5 of the act creating the commission, p. 6; Maine Tax Commission Report, 1890, resolution of Legislature creating commission, p. 2; Massachusetts Tax Commission Report, 1875, resolution of Legislature creating commission, p. 2.

[2] Observe the character of the reports as described in Chapter III. It seems that the inheritance tax and corporation tax recommended by the commission of New York of 1880 gave rise to the present inheritance and corporation taxes in that State, Chapter III, pp. 40-41. This is one of the few instances where the Legislature has followed a recommendation of the commission.

and copies distributed to members of that body, the surplus is sent, upon application, to individuals throughout the State.[1] In this way the State is made to see what legislation is necessary, and legislators are likely to be forced to commit themselves before election upon the subject of taxation.

Changes Recommended.

The recommendations of the commissions can only be considered as advisory suggestions, directing where changes should be made in those parts of the law which are weak and unjust, and as embodiments of the reforms which should be instituted. Those recommendations which received the sanction of a number of different commissions may be summarized as follows:

Assessments.—Unfair assessment is a characteristic of every State tax system. This evil may be credited to either the property owner or the assessor. In no State is one uniform standard of value applied in assessments, and seldom is full value attached to any property. This condition has been disclosed by the commissions in their investigation, and suggestions by which true, full value can be obtained in every case have been presented. The commissions have emphasized the importance of a legal declaration stating clearly what value shall be put upon the property, whether full, half or third, and also that one rule should be laid down and every effort made to have it, at all times, applied. The commissions generally have recommended, as a means of securing the application of this rule, that supervisory bodies be created to overlook the work of the assessors.[2] Other

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[1] The report of the Tax Commission of Massachusetts of 1875 was not only supplied to the Legislature of that year, but in 1893 a resolution was passed providing for the reprinting of one thousand copies of the report to be distributed under the direction of the Tax Commissioner. Three copies of the Maine Commission Report of 1890 were to be presented to each member of the Legislature of that year, and 1000 copies to be provided for the use of the next Legislature.

[2] Connecticut Commissions, '43, '67, '80, '84; New York Commissions, '62, '70, '92; Massachusetts Commission, '74; New Jersey

suggestions have been made to attain the same end, such as the appointment and election of assessors and the lengthening of their tenure of office;[1] and also the careful listing of property.[2]

Real and Personal Property.—A common recommendation of tax commissions, appointed in States where general assessments are made at considerable intervals is, that such assessment be more frequent, so that fluctuations in value can be more easily followed.[3]

The reports of the commissions show that the greater part of personalty escapes assessment each year, and all efforts to increase the listing of this property have proved futile. This has caused recommendations to be made advocating the exemption of invisible personalty from taxation.[4] Opposing recommendations have been made as to the taxation of mortgages, with the balance in favor of taxation, and, if possible, of assessment to the holder of the mortgage.[5] The deduction of debts is a second subject upon

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Commissions, '79, '90; West Virginia Commission, '84; Illinois Commission, '85; Oregon Commission, '85; Iowa Commission, '92; Maine Commission, '89; Delaware Commission, '91.

[1] Massachusetts Commission, '94; New York, '62, '92; New Jersey, '68, '79; Maine, '89; Iowa, '92; Illinois, '85; Pennsylvania, '67.

[2] The following commissions favor the careful listing of all property: Connecticut, '43, '80 and '84; New York, '62; Pennsylvania, '89; New Jersey, '79 and '90; Massachusetts, '93; West Virginia, '84; Oregon, '85; Maryland, '86 (also Dr. Ely's report); Maine, '89; Connecticut, '80 and '84; also New York, '62 and '70, advocate detail listing of realty.

[3] Connecticut Commission Report of '68 and '86; that of Ohio of '93, and Iowa of '93, have recommended assessment every five years; New Jersey every three years; Maryland of '88, reassessment of realty every six years in the counties and three years in Baltimore, and personalty every year; New York of '71 recommends reassessment whenever the central authority thinks necessary.

[4] Connecticut Commission of '84; New York of '70 and '92 (counsel); Oregon, '85; Maryland, '86 (Dr. Ely's report); Delaware (minority report) recommended the exemption of invisible property, while New Hampshire of '74 and West Virginia of '84 recommended its exemption if it all cannot be taxed.

[5] The Commission of New York (committee) of '92 and '62; of Massachusetts, '93; of West Virginia, '84; of Delaware, '91; of New

which the commissions have formed different opinions. There is not the slightest doubt about many frauds being perpetrated because deduction of debts is permitted, and this is the main reason for several commissions recommending their taxation.[1]

Corporations.—While all the commissions are decided upon the justice of an increased tax upon corporations, there is little unanimity of opinion with respect to the method of levying the tax; some commissioners recommend a gross receipts tax,[2] others net receipts,[3] and still others a capital stock[4] tax. An increase in the tax upon railroads has been recommended.[5] Savings banks, hitherto exempt in whole or in part, have also been proposed as proper objects for increased assessments.[6]

Jersey, '68 and '79; of Maine, '89; of Oregon, '85 and '90; Iowa, '92, all recommend the taxation of mortgages. New York of '62 and '92 (committee); of New Jersey, '79; of Oregon, '85; and of Maine, '89, recommended that the tax be so laid as to fall upon the mortgagee.

[1] The Commissions of Massachusetts, '93; of New Jersey, '68, '79 and '90; of West Virginia, '84; of Maryland, '86; of Oregon, '90; of Iowa, '92, all recommended that deduction of debts be no longer allowed.

[2] The Commissions of New York (counsel), '92; of Pennsylvania, '89; of Oregon, '85; of Maryland, '86, recommend a gross receipts tax on telegraph and telephone companies.

[3] Mr. Wright, a member of the Commission of Pennsylvania, 1889, recommended that net receipts of all corporations be taxed.

[4] Connecticut, '67 and '84; New York (Com.), '92; Massachusetts, '93; Illinois, '85; Maine, '89; Iowa, '92, recommend a tax upon capital stock of certain corporations. Chapter III gives briefly these corporations.

[5] The Commissions of New York, '92 (counsel); of Illinois, '85; Pennsylvania, '89; of Oregon, '85 and '90; of Maryland, '86; of Ohio, '93; of Maine, '89, recommended the taxation of gross receipts of railroads. Massachusetts, '93; West Virginia, '84; Connecticut of '84 (also plus funded and floating debt); New York, '92 (committee); New York Report '71 (plus funded and floating debt) recommended a tax on capital stock at par of railroads.

[6] The Counsel of New York of 1892 recommended that each depositor having over $1000 should be taxed as on other property. Massachusetts Commission of 1874 recommended a tax on amount of over $1000 held by each depositor, and also that national bank

To make more complete existing systems of taxation, to reach certain classes of property owners who do not at present contribute, and to lighten the burdens of real estate owners, some comparatively new forms of taxes have been recommended by the commissions. Among these are the income tax and the inheritance tax. It is claimed that the former tax would fall upon those who own personalty and yet evade the full tax upon it.[1] The inheritance tax has been growing in favor of late years in all sections of the country. Later commissions have recommended its adoption and use.[2]

To prevent the continuation of undervaluation in the counties which contribute to State taxes, to lighten the taxes of real estate owners and to provide the smaller divisions with sufficient revenues, the separation of State and local revenues has been recommended by several commissions.[3] Other commissions do not recommend the separation, but in many cases are not opposed to it. A limitation of the taxing power has also been recommended by some commissions.[4]

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stock owned by savings banks be taxed as if owned by any individual. The Maine Commission of 1889 recommended that savings banks be taxed on all their investments in the State. New York Commission Report of 1871 recommended taxation of surplus; also New York Commission Report of 1881.

[1] The Commissions of Massachusetts, 1874 and 1893, and Dr. Ely in the Maryland Report of 1888, and Mr. Wright and Mr. Bolles in the Pennsylvania Report of 1890, advocate an income tax.

[2] The Commission of Connecticut of '84; of New York (counsel and committee) of '92; and of Maine, '89; of Iowa, '92; of (Dr. Ely's report) Maryland, '86; of Ohio, '93, look upon the inheritance tax as worthy of trial.

[3] The Commission of New York (committee), '92; of Illinois, '85; of Oregon, '85; of Delaware, '91; of Maryland (Dr. Ely), '86, advocate the separation of revenues. The Maine Commission of '89 does not object to separation so long as State taxes are not absolutely confined to corporations. Delaware and Pennsylvania already enjoy separation of revenues.

[4] New York Commission of '70; Massachusetts, '74, and Illinois, '85, have recommended that a limitation be put on the power to increase the tax rate.

APPENDIX.

TABLE I.

The Problem of Taxation as Reported by State Tax Commissions.

I.—Real Property.

1. *Undervaluations.*

All the commissions of Connecticut, New York, Pennsylvania, New Jersey, Massachusetts, New Hampshire, West Virginia, Illinois, Oregon, Maryland, Maine, Delaware, Iowa, District of Columbia and Ohio.

2. *Varying valuations.*

All the Commissions.

3. *Excessive taxation.*

Connecticut, 1880 and 1884; New York, 1880; New Jersey, 1879 and 1890; New Hampshire, 1874.

II.—Personal Property.

A.—invisible.

1. *When situated within the State, it escapes.*

All the Commissions except New Jersey, 1868.

2. *When owned by residents, but having its situs in another State, it escapes.*

New York, 1870 and 1880.

3. *Money on hand is taxed.*

Connecticut, 1884.

4. *Exemption of debts makes fraud possible.*

Connecticut, 1867, 1880 and 1884; New York, 1862, 1870, 1880, Counsel and Committee of 1892; New Jersey, 1868, 1879 and 1890; Massachusetts, 1874 and 1893; West Virginia, 1884; Oregon, 1885 and 1890; Maryland, 1886; Iowa, 1892.

5. *Credits evade taxation.*

Connecticut, 1867; Pennsylvania, 1889; Massachusetts, 1874 and 1893; Oregon, 1885 and 1890.

6. *Citizens by moving from section to section throughout the State, escape taxation.*

Massachusetts, 1874 and 1893.

7. *Municipal bonds taxed.*

Massachusetts, 1893.

8. *Municipal bonds exempt.*

District of Columbia, 1892.

B.—VISIBLE.

1. *Merchants are taxed on the average stock held during the year.*

West Virginia, 1884.

2. *Merchants are taxed on both stock and book accounts.*

Maryland, 1886.

3. *Foreign capital doing business in the State escapes.*

New York, 1880, and the Counsel and Committee of 1892; Oregon, 1885 and 1890.

4. *Property is not fully listed because of the exhibiting of the list to the public.*

The Counsel and Committee of New York, 1892.

5. *Mortgages exempt.*

Counsel and Committee of New York, 1892; Massachusetts, 1874 and 1893; Maryland, 1886.

6. *Mortgages taxed.*

Ohio, 1893.

7. *No uniform rule applied to mortgages.*

New Jersey, 1879 and 1890.

III.—CORPORATIONS.

I.—IN GENERAL.

a. They escape in part.

Connecticut, 1867 and 1880; New York, 1870 and 1880, and Counsel and Committee of 1892; Massachusetts, 1893; West Virginia,

1884; Illinois, 1885; Oregon, 1885 and 1890; Maryland, 1886; Maine, 1889; Ohio, 1893.

b. Foreign corporations doing business in the State escape.

The Counsel and Committee of New York, 1892; Ohio, 1893.

c. Shares of stock in foreign corporations are taxed.

Connecticut, 1884; New Jersey, 1879 and 1890; Massachusetts, 1893.

d. Opposed to the sole taxation of corporations by the State.

The Counsel and Committee of New York, 1892; Oregon, 1885 and 1890.

e. By exemption of corporations capital is lured from sister States.

New York, 1870 and 1880; Massachusetts, 1893.

2.—IN PARTICULAR.

a. Street Railways. Taxes collected are distributed to the localities where the stockholders reside.

Massachusetts, 1893.

b. Railroads. They fail to pay their full proportion of the taxes.

Connecticut, 1884; New York, 1862, 1870, 1880 and 1892; Massachusetts, 1893; West Virginia, 1884; Illinois, 1885; Oregon, 1885 and 1890; Maryland, 1886; Maine, 1889; Ohio, 1893.

c. Banks.

1. *Stock unequally taxed.*

Massachusetts, 1874 and 1893.

2. *Savings banks are used by the wealthy class to avoid taxation.*

Connecticut, 1867, 1880 and 1884; New York, 1870, 1880, and Counsel and Committee of 1892; Maryland, 1886; Maine, 1889.

3. *National banks. Stock held by savings banks is exempted.*

Massachusetts, 1874.

d. Insurance companies. They are not taxed properly nor fully.

1. *Life.*

New York, 1862, 1870, 1880, 1892; Oregon, 1885 and 1890; Maine, 1889.

2. *Fire.*

New York, 1862 and 1870; Oregon, 1885; Maryland, 1886; Maine, 1889.

3. *Title.*

Oregon, 1885; Maryland, 1886; Maine, 1889.

e. Trust companies. They escape their full taxation.

New York, 1870 and 1880; Maine, 1889.

f. Deposit companies. They escape their full taxation.

New York, 1880.

g. Church, literary, charitable and educational institutions are exempted.

New Jersey, 1879 and 1890; Massachusetts, 1874 and 1893; New Hampshire, 1874; Maryland, 1886.

IV.—Miscellaneous.

1. *Income is taxed.*

Counsel and Committee of New York, 1892; Massachusetts, 1874 and 1893.

2. *A poll tax is levied.*

Massachusetts, 1874 and 1893; Oregon, 1885.

3. *Discount allowed for prompt payment.*

Massachusetts, 1874; Maryland, 1886.

4. *Laws are confused.*

New York, 1870, 1880, and Counsel and Committee of 1892; Pennsylvania, 1867; New Jersey, 1868, 1879 and 1890.

5. *Lack of local revenues.*

Pennsylvania, 1889; Delaware, 1891.

V.—Administration of the Tax System.

1. *Assessors fail to perform their duties.*

All the Commissions.

2. *Assessors have not sufficient power.*

New Jersey, 1879 and 1890; Massachusetts, 1874 and 1893.

3. *Assessments are not frequent enough.*

New York, 1870 and 1880; New Jersey, 1879 and 1890; Maryland, 1886; Ohio, 1893.

4. *Lack of supervision.*

Connecticut, 1867, 1880 and 1884; New York, 1862, 1870, 1880, Counsel and Committee, 1892; Pennsylvania, 1889; New Jersey, 1879 and 1890; Massachusetts, 1874 and 1894; West Virginia, 1884; Illinois, 1885; Maryland, 1886; Maine, 1889; Delaware, 1891; Iowa, 1892; District of Columbia, 1892; Ohio, 1893.

5. *Boards of equalization fail to perform their duties.*

Connecticut, 1843, 1867, 1880 and 1884; Oregon, 1885, 1890; District of Columbia, 1892; Ohio, 1893.

6. *Making oath to the list of property returned has a demoralizing influence.*

New York, 1870; Illinois, 1885.

7. *System of collection is defective.*

Pennsylvania, 1867; Oregon, 1885 and 1890; Maryland, 1886.

TABLE II.

The State Tax Commission, its Creation, Organization, Duties, Powers and Methods.

I.—Names of States which have had Tax Commissions, how and when Created, Tenure of Office and Time of Report.

How created.

In the District of Columbia by Congress, all other Commissions by the various State Legislatures.

Connecticut.

Created	1843;	tenure	of office	12	months;	report	made	1844
"	1867;	"	"	12	"	"	"	1868.
"	1880;	"	"	12	"	"	"	1881.
"	1884;	"	"	34	"	"	"	1886. 1887.

New York.

Created	1862;	tenure	of office	10	months;	report	made	1863.
"	1870;	"	"	22	"	"	"	1871. 1872.
"	1880;	"	"	11	"	"	"	1881.
"	1892;	"	"	12	"	"	"	1893.
"	1892;	"	"	12	"	"	"	1893.

Pennsylvania.

Created	1867;	tenure	of office	10	months;	report	made	1868.
"	1889;	"	"	11	"	"	"	1890.

New Jersey.

Created	1868;	tenure of	office	10	months;	report made	1869.
"	1879;	"	"	12	"	" "	1880.
"	1890;	"	"	12	"	" "	1891.

Massachusetts.

Created	1874;	tenure of	office	6	months;	report made	1875.
"	1893;	"	"	12	"	" "	1894.

New Hampshire.

Created 1874; tenure of office 23 months; report made 1876.

West Virginia.

Created 1884; tenure of office 10 months; report made 1885.

Illinois.

Created 1885; tenure of office 12 months; report made 1886.

Oregon.

Created	1885;	tenure of	office	12	months;	report made	1886.
"	1890;	"	"	12	"	" "	1891.

Maryland.

Created 1886; tenure of office 24 months; report made 1888.

Maine.

Created 1889; tenure of office 18 months; report made 1890.

Delaware.

Created 1891; tenure of office 24 months; report made 1893.

District of Columbia.

Created 1892; tenure of office 8 months; report made 1892.

Iowa.

Created 1892; tenure of office 11 months; report made 1893.

Ohio.

Created 1893; tenure of office 8 months; report made 1893.

II.—Membership.

Number of members, whom to be appointed, and by whom.

1. *Appointed by the Governor and Executive Council.*

Connecticut commission of 1880 had 4 members; of 1884 had 9 members.

New York commission of 1870 and 1881 had 3 members; of 1892 (Counsel) had 2 members.

New Jersey commission of 1879 had 5 members; of 1890 had 6 members.

Massachusetts commission of 1874 had 3 members.

New Hampshire commission of 1874 had 3 members.

West Virginia commission of 1884 had 3 members.

Illinois commission of 1885 had 12 members. The members were to be selected from different occupations and from the several counties.

Maryland commission of 1886 had 4 members.

Maine commission of 1889 had 3 members.

Iowa commission of 1892 had 4 members. No member was to be selected from the Legislature; not more than two from the same political party; the agricultural class must be represented.

Ohio commission of 1893 had 4 members. They should be suitable men from the two most prominent political parties.

2. *Appointed by the Legislature.*

Connecticut commissions of 1843 and 1867 had 4 members.

New York commission of 1862 had 3 members, and 1892 (Counsel) had 7 members.

Pennsylvania commission of 1867 had 3 members; of 1889 had 8 members. To form the commission of 1889 the members were to come from different occupations.

Massachusetts commission of 1893 had 11 members.

Oregon commission of 1885 had 7 members and 1890 had 5 members. The former commission was to be composed of members of the House of Delegates, while the latter were to be taken from the Senate.

Delaware commission of 1891 had 6 members.

District of Columbia commission of 1892 had 3 members.

III.—Duties.

a. To ascertain the evils of the State systems and their cause.

All the Commissions.

b. To revise the laws.

Connecticut of 1884; New York, 1870, 1880, Counsel and Committee of 1892; Pennsylvania, 1867 and 1889; Massachusetts, 1874 and 1893; New Hampshire, 1874; West Virginia, 1884; Illinois, 1885; Maine, 1889; Iowa, 1892; Ohio, 1893.

c. To make a report.

Number of reports made by the commissioners of each State: Connecticut 5; New York 6; Pennsylvania 2; New Jersey 3; Massachusetts 2; New Hampshire 1; West Virginia 2; Illinois 1; Oregon 2; Maryland 1; Maine 1; Delaware 2; Iowa 1; District of Columbia 1; Ohio 1.

1. *To the Legislature.*

Connecticut, 1843, 1867 and 1884; New York, 1862, 1880, and Counsel and Committee of 1892; Pennsylvania, 1867 and 1889; New Jersey, 1868, 1879 and 1890; Massachusetts, 1874 and 1893; New Hampshire, 1874; Oregon, 1885 and 1890; Maryland, 1886; Delaware, 1891; Iowa, 1892; District of Columbia to House of Representatives, 1892.

2. *To the Governor.*

Connecticut, 1880; New York, 1870; West Virginia, 1884; Illinois, 1885; Maine, 1889; Ohio, 1893.

d. To present recommendations for the improvement of the system of taxation.

All the Commissions.

IV.—Powers.

a. To command the presentation of public papers.

All the Commissions.

b. To summon and examine witnesses.

Connecticut, 1867, 1880 and 1884; New York (Committee), 1892; Pennsylvania, 1867; Massachusetts, 1874 and 1893; Illinois, 1885; Oregon, 1885 and 1890; Maryland, 1886; Maine, 1889; District of Columbia, 1892; Ohio, 1893.

V.—Methods.

a. Consultation of administrative officials.

All the Commissions.

b. Circulars were sent throughout the States requesting certain questions to be answered.

All the Commissions except New Jersey, 1868 and 1890; Iowa, 1892; District of Columbia, 1892.

c. Testimony was taken at different places in the State from representatives of different occupations.

Connecticut, 1867; New York (Committee), 1892; Pennsylvania, 1889; New Jersey, 1879 and 1890; Massachusetts, 1874 and 1893; Illinois, 1885; Maryland, 1886; Maine, 1889; District of Columbia, 1892; Ohio, 1893.

d. Close study of the Constitution of the United States, of each State, and also the reports of other States.

All the Commissions.

e. Authorities on taxation were consulted.

Connecticut, 1880; New York, 1862, 1870, 1892 (Counsel); New Jersey, 1879, 1890 (Adam Smith and J. S. Mill); Massachusetts, 1874 (Goschen and Harold Rogers), 1893 (Dudley Baxter); Illinois, 1885; Maryland, 1886 (Dr. R. T. Ely); Maine, 1889; Delaware, 1891; Iowa, 1892; Ohio, 1893 (E. R. A. Seligman).

TABLE III.

Recommendations made by the Tax Commissions in their Reports.

I.—Personal Property.

a. Visible personal property should be taxed.

New York, 1870. New system suggested, viz.: Tax land at 50 per cent. of its value separately from building; then tax the latter as representing the owner's personalty at 50 per cent., or on three times the rental value of the house. The Report of 1872 recommends the tax to be three times the rental value of the house.

b. Invisible.

1. *Should be exempt.*

Connecticut, 1884; New York, 1870; also 1892 if it cannot all be reached; New Hampshire, 1874; West Virginia, 1884, if it cannot all be reached; Maryland, 1886, Dr. Ely's report; Delaware, 1891, minority report.

2. *Should be taxed.*

New York Report, 1872; New Jersey, 1879; Massachusetts, 1874; Delaware, 1891, majority report; West Virginia, 1884, if all can be reached; Pennsylvania, 1889, Mr. Wright's report, tax it but not locally; New York, 1892, Counsel, tax it if all can be reached.

3. *Mortgages should be exempt.*

New York, 1870; Maryland, 1886; also Dr. Ely's report; Ohio, 1893.

4. *Mortgages should be taxed.*

New York, 1862, tax them to mortgagee; Committee of 1892, mortgage on realty should be taxed one-half of one per cent. annually to the holder. New Jersey, 1868, borrowers and lenders can make arrangements about who shall pay the tax on loans; New Jersey, 1879, tax them as part of the real estate and the collector can give the mortgagor a receipt for the amount of the mortgage tax, which, according to contract, can be subtracted from the interest due on the mortgage. Massachusetts, 1893; West Virginia, 1884; Oregon, 1885 and 1890, and Maine, 1889: tax them as land

and apportion the interest in the land between the mortgagor and mortgagee; Iowa, 1892.

5. *Money in hand should be exempt.*

Connecticut, 1884; Ohio, 1893.

6. *Money in hand should be taxed.*

Pennsylvania, 1889: Pay a State tax of three mills and local tax of two mills on each one dollar.

7. *Credits should be taxed.*

Connecticut, 1867; Pennsylvania, 1889, pay a State tax of three mills and local tax of two mills on every one dollar; Oregon, 1885.

8. *Debts should be exempt.*

New York, 1862, 1870, 1880, unless the tax is made uniform; Counsel and Committee of 1892.

9. *Debts should be taxed.*

Connecticut, 1867; New York, 1880, if the tax is uniform; Pennlvania, 1889, Mr. Wright's Report; New Jersey, 1868, 1879 and 1890; Massachusetts, 1893; West Virginia, 1884; Oregon, 1890; Maryland, 1886; Iowa, 1892.

10. *Bonds.*

(*a*). *Municipal.*

Massachusetts, 1893, and Ohio, 1893, should be taxed.

(*b*). *Corporate.*

Connecticut, 1867, should pay a tax of 8-10 of one per cent. on par value; New York, 1892 (Counsel), exemption; New Jersey, 1879: They should be taxed either locally or by State. Massachusetts, 1874: Tax them.

II.—Corporations.

A.—In General.

Connecticut, 1867: They should pay a tax on the true value of the corporate franchise at the average rate throughout the State. The tax should be distributed among the localities according to the number of shares owned in each section. Connecticut, 1884: Levy a tax of $100 upon application for charter. Upon incorporation, levy a tax of one-tenth of one per cent. on the par value of the shares issued. All corporations, except transportation and transmission companies and ecclesiastical and cemetery associations, should pay annually to the State a tax of one-fiftieth of one per cent. on total par value of shares of capital stock issued. New York, 1870 (Reformation of Old System of Taxation): Exempt

them from taxation as long as the State can do without the assessment. In the new system proposed the same commission recommend that all corporations monopolistic in character should be taxed. New York, 1892 (Committee): Foreign corporations should pay one-eighth of one per cent. upon the percentage of their total capital stock which the business done in the State bears to their entire business. Corporations, joint stock companies, express, gas, trust, electric, steam heating, lighting and power companies founded or organized in the State, with the exception of savings banks, domestic and foreign life insurance companies, banks, etc., should pay a tax of one-fourth mill upon each one per cent. of dividends upon the par value of the stock, if the dividends amount to six per cent. annually. Foreign corporations should pay a license fee upon the percentage of total capital stock which the business of said corporation done in this State bears to the entire business. Pennsylvania, 1889: Report of Mr. Wright: Profits alone should be taxed, that is, what remains when expenses have been deducted from gross receipts, but interest paid upon mortgages or fixed indebtedness is not included. Massachusetts, 1893: Shares of stock held in foreign corporations should be taxed. New Hampshire, 1874: All manufacturing establishments and the capital an machinery essential thereto and money loaned a town should be exempted from taxation. West Virginia, 1884: Apply a franchise tax. Mr. Mason, of this commission, recommended a tax on shares of stock and also a tax on the corporation itself. Illinois, 1885: That quasi-public corporations be taxed on capital stock. Oregon, 1885: Sleeping car companies, electric light, plank road, turnpike, wagon, road and bridge companies not organized under the State law should pay a tax of three per cent. on gross receipts. Oregon, 1890: The tax should be on gross receipts. Maryland, 1886: Corporations, except railroads, telegraph, express, telephone, insurance, safety deposit, trust and parlor car companies, should pay a tax on net profits and also a gross receipts tax. Foreign corporations should pay the same tax as Maryland corporations pay when doing business in the State creating the foreign corporations. Dr. Ely recommends that the Legislature refuse to grant charters to private companies which supply any municipality with gas, water, electric light. Charters might be granted to those bidding highest, that is, those willing to pay the greatest tax to the city. Even then the charter should be granted only for 15 years, after the expiration of which time it should revert to the city. Maine, 1889: Corporations of a speculative character should pay a franchise tax of one-tenth of one per cent. upon capital stock at par and an organization tax depending upon the amount of capital before the beginning of business. Capital not exceeding $5000 should pay $25. Iowa, 1892: They should be taxed one-fourth of one per cent. upon the amount of capital stock. Ohio, 1893: Foreign corporations should be exempted because the State did not create them and also because domestic corporations are not paying full taxes.

B.—IN PARTICULAR.

a. Banks.

1. *In general.*

Pennsylvania, 1889: Private banks and unincorporated banks should pay a local tax of ten mills on each dollar of gross earnings. Massachusetts, 1874: Bank shares should be taxed by the several States in the same way as moneyed corporations of their own creation.

2. *Savings banks should be exempt.*

Connecticut, 1867, and New York, 1862: Exemption of all amounts standing to the credit of any one depositor under $250. New York, 1892 (Counsel): Exemption should be allowed to the amount of $1000 held by each depositor.

3. *Savings banks should be taxed.*

New York, 1870 (new system proposed): The surplus should be taxed; New York, 1880. Pennsylvania, 1889: A local tax of 10 mills on each dollar of gross earnings. Massachusetts, 1874: Tax on all deposits in excess of $1000 held by any one depositor; also all national bank stock held by savings banks should be taxed the same as when held by individuals. Maine, 1889: One-half of one per cent. annually on all deposits, and loans made in the State, and one per cent. on those made out of State.

4. *National banks.*

New York, 1870 (new system proposed): Tax shares of stock. Pennsylvania, 1889: Local tax of three mills on each one dollar of capital stock value.

5. *Foreign banks.*

Connecticut, 1884: Shares owned by residents should be exempt. New York, 1880, also 1892 (Counsel): The latter recommends the payment of one-half of one per cent. on the business done in the State annually.

b. Insurance companies.

1. *Life.*

New York, 1862: Personalty should be exempted to the amount of $250 to each depositor. The mortgages held should be deducted when the tax is levied on capital. Capital stock and net earnings should be taxed, the net value of outstanding policies being deducted. New York, 1880; Oregon, 1885: The tax should be three per cent. on gross receipts when not organized under State laws. Maryland, 1886: Domestic companies should pay one per cent., and foreign one and a half per cent. on gross receipts. Maine, 1889. Two per cent. on all premiums received from residents and three-fourths of one per cent. on its surplus. Foreign

companies should pay two per cent. on all premiums received on contracts made in the State. Licenses should sell at $20, and agents should pay $5 annually.

2. *Fire.*

New York, 1862: Mortgages should be deducted when capital is levied upon; 1870 (new system): Let the assessment be upon the franchise proportioned to their capital stock. Oregon, 1885: Three per cent. on gross receipts when the company is not organized under State laws. Maryland, 1886: Domestic companies should be taxed one per cent. and foreign one and one-half per cent. on gross receipts. Maine, 1889: Foreign companies must pay two per cent. on all premiums received on contracts made in the State. Licenses should sell at $20, and agents should pay $5 annually.

3. *Title.*

Oregon, 1885: Three per cent. on gross receipts when the company is not organized under State laws. Maryland, 1886: Domestic companies one per cent., foreign one and one-half per cent. on gross receipts. Maine, 1889: Foreign companies must pay two per cent. on all premiums received under contracts made in the State. Licenses must sell at $20, and agents pay $5 annually.

c. Transportation and transmission companies.

1. *Railroads.*

Connecticut, 1884: They should pay annually to the State one per cent. on the value of the stock and a further tax on the par value of its funded and floating debt. New York, 1862: They should return a list of their property to local and State assessors, realty to be assessed where found, and personalty where main office is situated. Then the personalty tax should be apportioned among the localities. New York, 1870 (new system): They should be assessed alone to the State. Corporate franchise should be taxed at a valuation equal to the market value of its stocks and funded and floating debt, less cash on hand; Counsel, 1892: Foreign corporations doing business in the State by way of transportation and transmission companies should pay the same tax upon gross earnings as domestic corporations; Committee, 1892: They should pay one-quarter mill upon each one per cent. of dividends upon par value of the stock. Pennsylvania, 1889: All realty and personalty not essential to the transaction of business should pay a local tax on gross receipts or income over $300, and all essential to business should pay a local tax of four mills on value of property. Massachusetts, 1893: Capital stock should be taxed according to the number of miles of track. West Virginia, 1884: A franchise tax. Illinois, 1885: Assess on five times the amount of gross receipts at the average rate throughout the State. Oregon, 1885: State tax of two per cent. on gross earnings. Realty not used in the operation of the road should be taxed as other real property. Oregon, 1890: A gross receipts tax. Maryland, 1886:

Counties should levy on realty and personalty there situated. The State should levy a license privilege tax measured by gross receipts. The rate should increase with earnings per mile, beginning with one per cent. on first $1000 gross earnings. Dr. Ely's report recommends the same tax as the majority report. Maine, 1889: Gross receipts tax per mile, the rate increasing one-fourth of one per cent. with every $750 of gross receipts per mile. Iowa, 1892: One-fourth of one per cent. upon the amount of capital stock. Ohio, 1893: Franchise tax according to gross receipts.

2. *Telegraph.*

New York (Counsel), 1892: Foreign corporations should pay the same tax upon gross earnings as domestic corporations. Pennsylvania, 1889: All realty and personalty not essential to the transaction of business should pay a local tax on gross receipts or income over $300, and all essential to business should pay a local tax of four mills on the value of the property. Illinois, 1885: Seventy-five cents on every mile of wire. Oregon, 1885: Three per cent. on gross receipts of companies not organized under State laws. Maryland, 1886: Gross receipts tax at the rate of two per cent.

3. *Telephone.*

New York (Counsel), 1892: Foreign corporations should pay the same tax upon gross earnings as domestic corporations. Pennsylvania, 1889: All realty and personalty not essential to business should pay a local tax on gross receipts or income over $300, and all essential to business should pay a local tax of four mills on the value of the property. Illinois, 1885: Two dollars on each instrument. Oregon, 1885: Three per cent. on gross receipts not organized under State laws. Maryland, 1886: Gross receipts tax, the rate being three per cent.

4. *Express companies.*

New York (Counsel), 1892: Foreign corporations should pay the same tax upon gross earnings as domestic corporations. New York (Committee), 1892: All organized in the State should pay a franchise tax annually of one-fourth mill on each one per cent. of dividends upon the par value of stock if the dividends amount to six per cent. Pennsylvania, 1889: All realty and personalty not essential to the business should pay a local tax of four mills on the value of the property. Illinois, 1885: Two and one-half per cent. on gross receipts. Oregon, 1885: Three per cent. on gross receipts of companies not organized under State laws.

5. *Street railway companies.*

Massachusetts, 1893: The tax should not be distributed, but be kept in the locality where the business is pursued.

d. Trust companies.

New York, 1870 (new system): Franchise tax proportioned to capital stock. New York, 1880: Tax corporate trust mortgage

securities. Maine, 1889: One-half of one per cent. on all investments, deposits, loans made in the State, and one per cent. on those made outside of State.

e. Safety deposit companies.

New York, 1880.

f. Mining and quarrying corporations.

Connecticut, 1867: Those incorporated under State laws and doing business in the State should pay a tax of one-twentieth of one per cent. on the capital stock.

III.—Income Tax.

1. *In favor of such a tax.*

Pennsylvania, 1889, Mr. Wright's report. Massachusetts, 1874: Tax income exceeding $1000; and 1893 recommends the tax if income exceeded $2000 at a graded rate. Maryland, 1886, Dr. Ely's report: One per cent. on amounts over $600.

2. *Opposed to such a tax.*

New York, 1892, Counsel and Committee; Maine, 1889.

IV.—Inheritance Tax.

1. *Direct.*

New York, 1892 (Committee): Personalty in excess of $10,000 and realty in excess of $50,000. Maryland, 1886, Dr. Ely's report: One per cent. on amounts exceeding $1200. Iowa, 1892: When the value of personalty exceeds $25,000 and the realty $100,000, and when the same amounts are bequeathed to educational or charitable institutions, the tax should be one per cent. Ohio, 1893.

2. *Collateral.*

Connecticut, 1884: Three per cent. on all legacies over $1000, except public and charitable gifts. New York, 1880 and 1892 (Counsel): The latter recommends that money bequeathed to charitable and educational institutions be taxed as other collateral inheritances. The Committee of 1892: Realty and personalty in excess of $500; bequests to religious corporations should not be taxed unless in excess of $10,000. Maryland, 1886, Dr. Ely's report: Five per cent. on amounts exceeding $12,000. Maine, 1889: Two and one-half per cent. on amounts exceeding $500. Iowa, 1892: Five per cent. when it amounts to more than $2000 and not in excess of $50,000, seven per cent. on amounts exceeding $50,000 and not more than $100,000, and ten per cent. on amounts exceeding $100,000. Ohio, 1893.

V.—Poll Taxes.

In favor of such taxes.

Pennsylvania, 1889: All persons over twenty-one not having an income of $300 should pay an annual local tax of twenty-five cents. Mr. Wright, in his report, recommends a poll tax. Massachusetts, 1874: They should increase with the increase of expenditures and vice versa, a maximum and minimum rate being fixed.

VI.—Business Tax.

Maryland, 1886: Dr. Ely's report recommends a business tax of ten per cent. on the rental value of store, office and manufacturing establishments. Ohio, 1893: It should be levied on the net earnings of all corporations, domestic and foreign, except manufacturing and mercantile enterprises.

VII.—Church, Charitable and Literary Institutions.

1. *In favor of exemption.*

Pennsylvania, 1889, Mr. Wright's report; New Jersey, 1879; Massachusetts, 1874 and 1893; New Hampshire, 1874; Maryland, 1886, Dr. Ely's report; Iowa, 1892: Exempt bequest to the above if the amount does not exceed $25,000 in personalty or $100,000 in realty.

2. *Opposed to exemption.*

Maryland, 1886: All ground extending over ten feet from church, etc., should be taxed if not under the control of the State.

VIII.—Taxes on Merchandise.

West Virginia, 1884: Levy on the amount held at a fixed date. Maryland, 1886: Tax the actual value of the merchandise, but exempt book accounts.

IX.—Estates Held in Trust.

New York, 1892 (Committee): Should be levied upon at county probate.

X.—Wholesale Liquor Dealers.

Maryland, 1886, Dr. Ely's report: One thousand dollars for license, and twenty-five per cent. of rental value of place of business.

XI.—Discount for Prompt Payment of Taxes.

Opposed.

Massachusetts, 1874 and 1893; Maryland, 1886.

XII.—Separation of State and Local Taxes.

In favor of such separation.

New York, 1872 and 1892 (Committee); Pennsylvania, 1889, Mr. Wright's report: Things local in character should constitute the source of local taxation. Illinois, 1885: Corporations should be the source of State revenue. Oregon, 1885; Maryland, 1886, Dr. Ely's report; Maine, 1889: The State should have some other source of revenue than corporations. Iowa, 1892; Ohio, 1893.

XIII.—Tax as Few Things as Possible.

Pennsylvania, 1889, Mr. Wright's report.

XIV.—The Laws should be Made Clear.

New York, 1880 and 1892 (Counsel); Pennsylvania, 1867; Maine, 1889.

XV.—Limitation of the Taxing Power.

New York, 1870 (new system): A limit should be put upon the rate at which taxes can be levied in any year. The report of 1872 says the Legislature should be consulted upon the levying of any tax in the counties. Massachusetts, 1874: Municipalities should be prohibited from incurring debts beyond a certain per cent. of assessed value of property. Illinois, 1885: A maximum rate should be fixed.

XVI.—Administration of the Tax System.

a. Listing property.

1. *In favor of the list.*

Connecticut, 1843, 1880 and 1884; New York, 1862; Pennsylvania, 1889; New Jersey, 1879 and 1890; Massachusetts, 1893; West Virginia, 1884 (Mr. Mason); Oregon, 1885; Maryland, 1886, Dr. Ely's report; Maine, 1889.

2. *Opposed to the list.*

New York Counsel and Committee of 1892.

3. *In favor of listing in detail.*

Connecticut, 1843 (realty), 1880 and 1884; New York, 1862 and 1870.

4. *In favor of listing in the aggregate.*

Connecticut, 1843 (personalty).

5. *In favor of requiring oath with list.*

Connecticut, 1843; New York, 1862; New Jersey, 1879.

6. *Opposed to oath with list.*

New York, 1870 (Report of 1871); Illinois, 1885.

7. *Exhibition of list to public.*

(*a*). *In detail.*

Pennsylvania, 1889; Maine, 1889.

(*b*). *In aggregate.*

Connecticut, 1843; New York, 1862; Massachusetts, 1874.

b. Assessors.

1. *Should be appointed.*

New York, 1892 (Counsel); Pennsylvania, 1867; also Mr. Wright's report; Iowa, 1892.

2. *Should be elected.*

New York, 1862; New Jersey, 1879.

3. *Term of office.*

New York, 1862; New Jersey, 1879; Massachusetts, 1893; Maine, 1889, all recommend that the term be three years; Illinois, four years.

c. Reassessment.

1. *Real estate.*

New York, 1870: Whenever central body thinks necessary. New Jersey, 1879: Every three years, lands to be assessed separately from improvements. Maryland, 1886: Every three years in the city and every six years in the country. Dr. Ely, in his report, recommends every three years for country. Iowa, 1892, and Ohio, 1893: Every five years.

2. *Personal estate.*

Maryland, 1886: Annually.

d. Supervision.

1. *Establishment of a central board.*

New York, 1870; Pennsylvania, 1889: County Commissioners act as Board of Revision. New Jersey, 1879: State Board of Equalization. West Virginia, 1884: Illinois, 1885; State Board of Tax Commissioners. Maine, 1889: To consist of three State assessors holding office for six years; Delaware, 1891.

2. *Election of a State tax commissioner.*

Connecticut, 1843, 1867, 1880 and 1884; New York, 1892 (Counsel), election of State Board of Tax Commissioners; Massachusetts, 1874.

3. *County board of assessment.*

New York, 1862.

e. Methods of bringing about equalization.

1. *Creating a board of equalization.*

Pennsylvania, 1889: County Commissioners should act as a Board of Revision. New Jersey, 1879 and 1890; Oregon, 1885, and Ohio,

1893: There should be County and State Boards. District of Columbia, 1892; Iowa, 1892: There should be State and County Boards consisting of the Assessors. Ohio, 1893.

2. *Creating a board of appeal.*

Connecticut, 1867.

f. The collection of taxes.

The county treasurer should collect all the taxes.

Pennsylvania, 1867; Oregon, 1885; Maryland. 1886; also Dr. Ely's report.

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XII

TENDENCIES IN AMERICAN ECONOMIC THOUGHT

JOHNS HOPKINS UNIVERSITY STUDIES

IN

HISTORICAL AND POLITICAL SCIENCE

HERBERT B. ADAMS, Editor

History is past Politics and Politics are present History—*Freeman*

FIFTEENTH SERIES

XII

TENDENCIES IN AMERICAN ECONOMIC THOUGHT

By Sidney Sherwood, Ph. D.

Associate Professor of Political Economy in the Johns Hopkins University

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TENDENCIES IN AMERICAN ECONOMIC THOUGHT.

I.—Introduction.

To the European, familiar at home with the existence of a class of university men of leisure, it appears anomalous that in the United States—that land of economic progress—so little attention should have been given to the scientific explanation of that progress. The European forgets that the American, overwhelmed with the practical details of this hurried march, has had little time for scientific inquiry or even for cool reflection upon the facts within his view. Much of our economic literature, like Cæsar's Commentaries, has been written on the march and with distinct political aim.

It is true that the Americans have not produced a distinctive system of political economy—true also that their influence upon the development of economic science has not been in the remotest degree comparable to their influence upon the economic life of the world.

An economic literature there has been, however, the result of keen observation and sagacious reflection, which has won general respect for solidity and acuteness. There have been a few economists of original force, like H. C. Carey, F. A. Walker, and Henry George, whose work has commanded the attention of the world and has shaped in some measure the progress of the science. Within the last decade or two an army of young economists have taken the field and are making steady and brave advance. Nowhere to-day is the outlook more hopeful than in the United States for progressive work in the science of political economy.

In the development of political economy in the United

States there are at least two radically different periods. The second period begins about twenty years ago. It is marked profoundly by the influence of German economic thought, chiefly through the return of American students from Germany, to study American economic life partly from a German standpoint, and to teach in our colleges the scientific principles learned abroad. It is marked likewise by the economic revolution wrought out in America during this time. The vast body of free land has become practically exhausted, and the changes introduced into economic life by machinery and steam transportation everywhere have nowhere had greater effect than in the United States. We have lost during this period the most of that economic isolation which made the first century of our national existence unique in the world's history. Under the influence of these new conditions, and of the German economists, we are becoming more like the European countries in the development of our ideas.

This paper treats of the earlier period—the economic thought of the first century of the republic—when individual initiative had free and wide economic opportunity, and the mind of the American economist, touched only by the practical reason of England and the speculative logic of France, was virgin yet from the intellectual ferment of German thought.

Perhaps the most important American economists in respect of originality and force belonging to the ante-German period are Benjamin Franklin, Alexander Hamilton, Daniel Raymond, Frederick List, John Rae, H. C. Carey, F. A. Walker and Henry George. This list is by no means exhaustive, but is comprehensive enough and typical enough to illustrate the tendencies in American economic thought. General Walker and Mr. George, although both living less than a year ago, belong intellectually to the earlier period. There is no evidence that they were ever influenced by the German school of economics. In the writings of all these men we find the inspiration of their original ideas to have

been mainly the economic conditions with which they were familiar in America. In this sense they are all American economists.

In America, more certainly than in Europe, we look for little systematic writing on economic topics before the Revolution of 1776—the date of the Wealth of Nations. Before that time, however, Franklin had written wisely upon the subject of population and had taken active part in the political disputes in the colony of Pennsylvania over the perennial question—paper money. He had also given utterance to well-matured views on wages, on value, on manufactures and on taxation. He appreciated the importance of agriculture in the colonies and was half physiocrat before the rise of the physiocratic school. His statistical calculations and conjectures regarding the rate of growth of population in sparsely settled America, adopted by Adam Smith and subsequently by Malthus, became the basis of the classical doctrine of population.[1]

Economic writing was mainly opportunist everywhere during that period, and American pamphlets form no exception. The relative advantages of free or restricted trade, of agriculture or manufactures, of direct or indirect taxation, of paper or metallic money, were subjects of frequent and lively debate. Upon the whole, however, Franklin stands out as the most considerable and most important economist during the colonial period, and Franklin's views are chiefly the reflection, in a mind broad, clear-eyed and of quick perception, of the economic and political conditions of colonial America. Franklin's philosophical acuteness is present, however, in his economics. Wetzel proves that his views on population included the essential scientific principle of the Malthusian doctrine. The influence of the American environment appears in the fact that the same principle which Malthus, in overcrowded England, made the basis of

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[1] See Wetzel, Benjamin Franklin as an Economist, Johns Hopkins University Studies in Historical and Political Science, vol. xiii, 1895.

practical proposals to diminish the rate of growth, Franklin, in sparsely-settled America, made the basis of a policy favoring increase in the population.

This difference between the circumstances in England and in America, it will be seen, has been a powerful cause of different tendencies in economic opinion in the two countries. From this point of view the most interesting topics to consider are Protection, Rent and the law of Diminishing Returns, the Malthusian doctrine of Population, Capital, Wages and the Wages-fund theory, Economic Progress, and the Individual in relation to the State.

The American political economy, so far as it can be regarded as a distinct body of doctrine, is essentially a protest against the universality of the chief doctrines of the classical or English school. The impulse given to economic thought by the historical school has led to the partial abandonment, or the substantial modification, of the Smithian and Ricardian economy. Bagehot and Leslie and, to some extent, previous writers like Jones have pointed out the relativity of the classical system to the economic conditions of England at the close of the 18th century and the beginning of the 19th century. Dissimilar conditions in America, during this period, led independent writers to formulate views more in accord with the actual facts of the economic life of the western continent. One of the most striking illustrations of this is in regard to the Malthusian doctrine of population.

The Malthusians predicate the general truth or absoluteness of the law that the possibilities of increase in the population are greater than the possibilities of increase in subsistence. To make this law true in its original formulation the assumption must be made that the methods of production remain stationary. They do not show that it is impossible for new methods to increase productive capacity faster than the assumed possibility of increase in population. It is conceivable that new inventions in the mechanic arts, new processes in the organization of labor and capital, the ex-

ploitation of new resources may, over long periods, proceed at a rate outrunning the possible growth of population. Once establish this possibility, the absoluteness of the Malthusian law is disproved. This is not only true in the abstract; it is true in a far higher degree of the policy advocated by the Malthusians. At no time during this century, to go no further back, would it have been sound policy for the Americans to attempt to restrict the growth of their numbers. On the contrary, every increase in numbers has brought a more than proportionate increase in productive power and in the facilities for a higher level of life. We have stimulated immigration because the unrestricted natural growth in numbers was not sufficient to secure the industrial organization most conducive to prosperity and progress.

It is here that the premises of Smith would have led to juster conclusions than the reasoning of Malthus. One needs simply to follow out the logical consequences of Smith's ideas concerning division of labor to reach Carey's conclusions that the growth of numbers promotes that "association" of developed individuals which is the main cause of greater productive power. The logic of the facts of American economic life and the reasoning of certain American writers have powerfully aided in forcing a new and less absolute statement of the Malthusian law.

II.—Protection.

Modern protectionism is, both in theory and in practice, largely an American product. It is radically different from the restrictive trade legislation of the Mercantile period. Modern protectionism is the economic policy, not of nascent *nationality,* like the Mercantile doctrine, but of young *imperialism.* It is with the growth of vast federations of states into empires that modern protectionism has developed. Unity of interest, free economic movement between the different states—thus are the separate parts of the empire merged into a single body: a tariff wall of fortification around the imperial boundaries—thus can imperial strength be maintained in the keen rivalry for supremacy.

It was in the United States that this principle first found room for solid growth. The circumstances here were all favorable. The necessity for imperial or federated unity between the different nations or states had been learned in the hard school of the War for Independence. The power, which this unity brought, while overshadowed by the particularist sentiment of the mass of the people, loyal rather to their own states, inflamed the imagination of the great leaders. Washington, Jefferson, Madison, Hamilton and Franklin among others were ambitious to consolidate and perpetuate the union thus effected under stress of war. Experience had taught that a federal customs tariff was necessary to secure a federal revenue. The significance of this federal tariff as a power making for imperial unity was clearly perceived by the leaders. It was grudgingly allowed by the particularists and enthusiastically supported by the federalists. The fatal misfortune of the confederacy—its lack of revenue—became thus the means of giving the great federation of states its strongest consolidating force. Protection as a weapon in the hands of the new empire to ward off the dangerous economic rivalry of European states

and as the means of building up economic self-sufficiency within, while urged by the brilliant leader of the Federalists, Alexander Hamilton, was only haltingly applied until the second war with England had taught the advantages of manufacturing our own goods.

It was a democratic, not a monarchical, empire that we builded because we had learned before 1789 that the greatness of the state was identical with—not the greatness of the ruler—but with the prosperity of the people. So, with old Dr. Quesnay we spoke for the abolition of internal duties. The internal strength of the different parts of an empire must be fostered—its economic life quickened by the freest play of industry. And so, we must have better means of internal communication. Washington urged a federal road across the Alleghanies to bind to the East the rapidly growing middle sections, before they should be tempted to unite their fortunes with foreign Louisiana by the ease of river transportation. It was not all reason, it was in part a subtle instinct of self-preservation, a premonition of future imperial growth which gave us the combination of protection and internal improvement as the policy of the progressive party of the early decades of this century.

Adam Smith had more foresight than many of his followers. Free trade, although to him the absolutely right policy, the one which had the larger interests of all men in view, was in his mind an utopian dream in the present age of the world. It were folly to expect its realization. Our century has proved the solidity of his judgment. In this century one great empire after another has been founded, built up on economic solidarity of interests. Our own federal empire led the way. Frederick the Great brought Germany a long step forward in the path. Napoleon, in reorganizing revolutionary France, attempted it, but the frantic jealousy of England drove him into excesses that made his attempt a fiasco. But Napoleon, rousing the imperial spirit of the German people, pushed forward the work of the great Frederick. It is significant that the most aggressive early

agitator for German imperial union, Frederick List, found one of his first illustrations of the advantages of trade restriction on the imperial frontier, through observing the quickening effects on German manufactures, of Napoleon's continental blockade, which excluded English goods. German imperial union was effected a quarter of a century ago and the imperialists are now seeking by active efforts at colonization to build a yet larger empire. Disunited Italy has been built into a small empire—also with a colonial policy. The English policy has been to extend everywhere her colonial empire. France, through all the dynastic and external troubles of the century, has pushed her possessions in Africa and the East. Russia and the United States have throughout the century steadily enlarged the boundaries of their territories wherever it has been possible. By purchase where possible, by war when necessary, we have seized nearly all the best part of our continent. We have added arctic Alaska. We are looking with hungry eyes on tropic Hawaii and Cuba. We warn Europe and Asia away from both American continents as if we dimly dreamed that one day we must incorporate all America into one union. Russia, likewise, is building a yet vaster empire with steady and relentless persistency.

In all this empire-making one principle differentiates modern politics from the old—the ever clearer recognition that political unity must be built upon unity of economic interest. The Roman empire was held together by military roads. Modern empires are more and more held together by freight-carrying railroads. The English world-power has been largely established and maintained by her navy. It is to the building up of a greater intercolonial merchant marine, by establishing a customs-union between all parts of her dominions, that England is now turning to save her empire from German and American competition. It is noteworthy, moreover, that a pan-American economic union has already been suggested, and that Austrian and German statesmen are predicting the necessity of a *Zollverein* of

continental Europe to match this projected British federal empire on the one hand and united America on the other.

Modern protectionism, the restriction of foreign competition with the encouragement of the freest internal trade, has been the distinctive politico-economic policy of the empire-builders of this century. Protection has come to stay for a century or two yet. National rivalry made mercantilism necessary. Rivalry between great federations makes protection necessary—protection of the modern type, tariff on foreign goods, free trade within.[1]

This modern protectionism is, as has been said, largely the work of Americans. The policy of Alexander Hamilton is the first consistent expression of this doctrine, within my knowledge. The experiment of our federal union along this line was the first, perhaps, at any rate the most conspicuous and most successful example of this empire-building policy. The union of that policy with that of internal improvements, as found in the so-called "American System," gave to Frederick List the definite idea upon which were based his protectionism and his agitation for the *Zollverein* and development of railways in Germany. He came to America a free-trader. Convinced, indeed, he was before of the need of union in customs regulation within the German states. But it was under the influence of his surroundings in the manufacturing and protectionist State of Pennsylvania, in contact with men like Matthew Carey and other members of the Philadelphia Society for the Promotion of National Industry, and with such protectionist writings as Hamilton's Report on Manufactures, and Daniel Raymond's Thoughts on Political Economy,[2] that List learned how potent an instrument protection could be in building up the productive power of a great people.

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[1] It may be said parenthetically here, that if our people ever wish to have Canada brought into the Union, no policy would be half so effective as the policy of free trade with Canada.

[2] See Daniel Raymond, by C. P. Neill, in the present volume of the Johns Hopkins Studies in Historical and Political Science.

It was here before this very Society that List published his first utterances in advocacy of the protectionist system.[1]

In America also List learned more completely how important better means of transportation were in order to strengthen the economic and political bonds of different states, and from here he went back to Germany to advocate the railway system as an agency to unify Germany. Here he saw, what he could not see so well in the old world with its ruts of custom, how new national unity and strength were to be won by the development of industrial wealth—and no less evident was it that this industrial wealth was dependent on the growth of economic interdependence and unity between the different parts of the federal union. List's protectionism is rightly regarded as American in its origin. He was the successor of Hamilton and Raymond. From them and his American surroundings he appears to have taken the essential basis of his system, and upon this basis he elaborated his theory. In the history of American protectionism Rabbeno has rightly placed Frederick List. He represents the succession of American writers on protection, and he was of large influence on subsequent protectionists. The Germans, too, have the right to claim him—the larger right in fact—and through him Americans can feel that they have helped to build the German imperial union.

Two other literary advocates of protection merit notice—John Rae and Henry C. Carey. There seems to be no positive evidence that either of these writers was influenced directly by List. The former in fact had little opportunity of knowing what List had done. His "Statement of Some New Principles on the Subject of Political Economy, exposing the Fallacies of the System of Free Trade, and of some other doctrines maintained in the Wealth of Nations," was published in Boston in 1834. He was a Scotchman, residing in Canada. His project, while in England, had

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[1] Outlines of American Political Economy. Philadelphia, 1827. A report was also printed of an address by List at a dinner given to him by the said society.

been a grand one—something like that of the modern sociologist—to write an adequate account of human evolution. He was forced, however, suddenly to exchange " the literary leisure of Europe for the solitude and labors of the Canadian backwoods." He had made a special study of Smith's Wealth of Nations before leaving England and confesses his disappointment at the narrowness of its scope and its erroneous conclusions. In the solitude of his American sojourn he again took up the formerly rejected Smith in order to trace out the connection between the phenomena of wealth " and those general principles of the nature of man and of the world, determining . . . the whole progress of human affairs." This second examination confirmed his former opinion. He then undertook to examine the relations between Great Britain and her colonies, especially Canada, and found it a relation of mutual benefit—contrary to the Smithian theory. He was thus led to make an attack, based upon his American experience, upon the free trade theory of Smith. He speaks of " the effects of the [protective] policy pursued by the legislature of the United States, as affording the best practical illustration hitherto existing of the correctness of some of the principles " he maintains. He has omitted reference to them mainly, however, because he thinks such reference superfluous in America.[1]

Rae's arguments for protection and other legislative aid to young industry are urged in opposition to free trade arguments of Smith. Smith admits, says Rae, that the progress of nations is from agriculture to manufactures, and ultimately to commerce. Rae shows that the change to manufactures is very difficult for the unaided individual in the new country from lack of skill, lack of workmen, lack of capital, disinclination of men to emigrate. The probable loss to the pioneer manufacturers deters individuals from

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[1] An excellent account of Rae's theory of capital and interest appears in the Quarterly Journal of Economics for January, 1897, by C. W. Mixter. The article bears the title " A Forerunner of Böhm-Bawerk."

the undertaking. Historically the migration of manufactures has been occasioned either by the forcible driving from one country to another of skilled workmen, through "wars and conquests, tyranny and persecutions, the jealousy and hatred of rival States," or to the necessity of establishing manufactures as a means of national defense when commerce has been interrupted by war. American manufactures have been established, he points out, through both of these agencies. He argues for the peaceable alternative, the active encouragement of the legislature. The effects of the importation of manufacturing skill remain the property of the community. Their first cost may well be borne by the community as a whole.

Smith puts too exclusive stress upon capital as the source of the national wealth, argues Rae. Intelligence, skill, invention are quite as necessary, and the growth of these qualities can be promoted in the people by the legislature to some extent. The importation of a foreign science or art, for example, may stimulate the inventive skill of a people, as Hamilton has urged. The independent productive power of the nation is thus developed, and the shock to the whole economic organization of the country when foreign commerce is stopped by war is greatly lessened. Besides, the importation of foreign manufacturing art has the immediate advantage, particularly in a country abounding in raw materials, of saving the cost of long double transportation, by putting the manufacturing town close to the farm and the mine. Thus Rae argues with the conditions of the new American country continually before him.

Carey's[1] protectionism is based upon many secondary arguments of more or less force. The argument founded upon his fundamental philosophical principle—the greater productive power due to "association," which strengthens special individual aptitudes and at the same time combines

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[1] The most convenient reference is to Carey's Principles of Social Science, Philadelphia, 1858, not merely for his protectionist arguments but for his views in general.

more advantageously all these separate forces into a whole—is powerful and convincing. Protection promotes "association" by putting the manufacturing town near the farm, both increasing the population and bringing the population into closer economic relation with each other. Thus are promoted the use of richer soils and other natural resources, the growth of intelligence, the division of labor and the general productive power of the community.

III.—Diminishing Returns. Malthusianism. Rent.

A most noticeable tendency in the economic thought of America has been the denial of the doctrine of diminishing returns in agriculture and the Malthusian law of population. Henry C. Carey represents this tendency most fully, but he remains only one among many writers. The denial of these two fundamental principles of the old-world economics seems to have been ingrained in popular thought. It is customary to dismiss Carey's arguments with a sneer as those of a man ill-trained in scientific method, irascible and dogmatic, moved chiefly by antagonism to England. The fact remains that Carey's two fundamental arguments are based upon the most obvious facts of early American development. These two arguments are that increased association and increased intelligence lead, through the use of better lands and better methods, to increasing returns in agriculture and to a greater per capita production. A growing population within the same territory increases association, promotes industrial differentiation, thus increasing the intelligence and ability of the individual. Increased intelligence in the individual, better organization of individuals through association—these forces result in larger proportionate returns. There never was a time during the period of American growth in which Carey lived when a more rapid growth of population would not have been desirable and that for the very reasons assigned by Carey. The ability of a sparsely settled country as its population increases to make more intelligent use of the land and thus, through better methods of agriculture, to create increasing returns, was patent enough in our early history. The advantage of a rapidly increasing population in promoting division of labor and differentiation of industry was no less apparent.

The United States, during the first three quarters of this century, were proof that a body of economic doctrine in

which the two basic laws were diminishing returns and Malthusianism was essentially incomplete, special and one-sided, not in the least worthy of acceptance as necessary and universally applicable truth.

In America during that period it was not true that agriculture generally was an industry of diminishing returns. In America it was not true that an increasing rate of growth in population meant decrease in per capita supply of food and increase in general misery. If we had had during this time a large body of leisured and intelligent scholars, who had not read Ricardo and Malthus, devoted to the independent study of economic life in America, it is very probable that a system of economics would have appeared in which laws of increasing returns in agriculture and of increasing per capita production with increasing population would have been prominent parts. And such a body of economic doctrine would have been at least as valid as was the system known as the classical political economy. We did not have such a class of scholars, and it was left for Germany to develop that protest against the narrowness and inaccuracy of the English school which has led the way to a more scientific view of economic life. But the facts which made the historical school a necessity were nowhere more prominent than in the United States, and Americans have the satisfaction of knowing that they contributed in some degree the intellectual impulse which gave rise to the historical school. List has confessed that the shaping of his economic system and policy was largely due to the opportunity he enjoyed in the United States of seeing new societies pass from barbarian primitiveness to civilization beneath his eyes. The relativity of economic principles was thus impressed upon his mind more vividly than it would have been in any other part of the world. It was this principle of relativity which List taught with so much power that became one of the bases of the historical system. I have pointed out earlier in this paper the direct influence of American writers on List so far as his doctrine of protection is concerned.

Whatever Carey's faults in method or errors in thought, he is worthy of commendation for his strong and eminently accurate grasp upon the principles of American economic progress. He belongs in reality to the historical school. In spite of some vagaries, which have brought him more than adequate censure, he deserves greater praise than many of the purely negative adherents of that school, because he made a strenuous attempt to construct a positive philosophy of economic and social progress. Carey's influence upon the science is marked, in spite of his deriders. The law of diminishing returns is no longer treated as an absolute law. The proviso is made in stating it that *under given conditions* as to the arts of cultivation, skill in organization, intelligence in conduct of agriculture, etc., proportionate returns decrease with increase of capital and labor applied. What Carey urged was that more intelligent methods, etc., led to increasing returns. The facts were that in America better methods were continually adopted, either better machinery, or better draining, or the selection of better soils, or better combination of products, with the result that the general law of American agriculture was increasing returns.

The attitude of many American writers toward the Ricardian rent doctrine is well brought out in the following quotations from Phillips.[1] "It will be unnecessary to occupy ourselves long with the somewhat metaphysical and now almost exploded theory, which has had a temporary popularity in Great Britain, and occupies great space in some of the economical treatises, especially that of Mr. Ricardo, where it is very formally, or as the London Quarterly Review says, 'pompously,' announced as a grand discovery in political economy." After a clear statement of the Ricardian theory Phillips proceeds: "This theory brings with it too many inadmissible consequences. . . . It proves that,

[1] A Manual of Political Economy, with particular reference to the Institutions, Resources and Conditions of the United States, by Willard Phillips. Boston, 1828.

after rents have once accrued in a community, every extension of wheat cultivation is detrimental to the national prosperity. It proves also that if all the lands are of equal fertility, rents will never accrue. This theory is laid down in general terms as if it would apply to any country, whereas we know quite well that a much greater quantity of wheat could be produced in the United States without any increase of the expense per bushel in the production, etc."

The American critics of the classical rent doctrine saw that in some way it did not, as stated, seem to apply to American conditions, and they were led to repudiate the entire theory instead of seeking a restatement of an essentially true principle. The prevalence of proprietorship in the lands by the farmers themselves in America tended to obscure the whole doctrine of rent.

IV.—Capital.

One remarkable tendency characterizes American writers who have observed facts for themselves, a conception of capital very different from that of the classical school. With the latter the typical form of capital was food, a fund in the employer's hands which furnished subsistence to the laborers during the period of production. When capital was generalized it was often the banking capital which furnished the type. But capital as an instrument of production was the subsistence of the living producer. In American economics, on the other hand, the typical form of capital is machinery, instruments; not the *saved* stock of goods appropriated to future consumption, but a constructive provision for the future, an organization of productive forces designed to yield consumer's goods in the future.

Capital is defined by Raymond as the "instrument in the hands of men" in producing wealth. It is not the source of wealth; it does not set industry in motion; it is merely the tool of labor. The typical forms of capital are the steam-engine, the spinning-jenny, the spade, the wheel, money, "by which the merchant is enabled to exchange commodities," ships and land.

Rae regards capital as consisting of "instruments" fitted to supply future wants, while the definition by Carey runs as follows: "the instrument by means of which that mastery [over nature which constitutes wealth] is acquired." The growth of capital is not due, as Smith would have it, to "parsimony," but to the economy of human effort resulting from diversity of employments.

The popular thought and speech came to regard the machine, that instrument which abridged labor by making more skillful use of natural forces, as the typical form of capital. It was the form of capital which gave the American his power. This change of emphasis from food, as the

type of capital in the older economic writing, to the machine as the typical form was characteristic of the changed method of industry in which machinery was displacing labor, or rather setting the laborer to work with a machine. The American characteristically did not like to regard himself as acquiring capital by the passive process of *saving*, but rather by the active process of constructing a better instrument, devising a better method. The power of capital was not in subsisting labor, but in increasing the productive power of labor.

Closely associated with this view is the concept of national wealth which runs through the writings of Raymond, List, Rae and Carey. As Raymond puts it, national wealth is "a capacity for acquiring the necessaries and comforts of life." List's economic system is based upon the same concept. Rae argues that nations do not "acquire" but must "create" wealth, and Carey's view is of productive power as the true wealth. Not accumulated stocks merely confer wealth, but the power of securing a large income of consumable goods. Wealth is a flow of income—not a fund. Capital is not a stock of accumulated goods, but an instrument which can produce a future continuing supply.

V.—Wages and the Wages-Fund.

Closely associated with the idea of capital as instrumental wealth in the hands of labor was a repudiation of the wages-fund theory. The wages-fund theory, at least in its ordinary form, was fitted to survive neither in the frontier economy of the North nor the slave economy of the South. The Northern laborer had always free land accessible. He needed only a few hundred dollars in order to become an independent farmer, and this capital was needed mainly for agricultural implements and stock. The profits of agricultural undertaking were the measure of wages. Only in a few manufacturing centers did any phenomenon like the visible dependence of the mass of laborers on accumulated capital become prominent. Even there the relation between individual efficiency and wages was so clear that one wonders how intelligent college professors could have taught the wages-fund theory even if they read only the English classics. The point of view was shifted from the capitalist-employer of the English Political Economy to the laborer himself. Not the weight of accumulated capital was the important thing in the system, but the degree of intelligence and skill in the individual. He was a wages-earner only temporarily, while he accumulated the small capital necessary to enable him to become industrially independent. The amount of his wages, and hence of the capital which he would be able to accumulate, depended thus primarily upon his own perseverance, skill and intelligence. No fact was plainer than that the one requisite factor in the production of wealth in the United States was the personal ability of the individual. Thus, instead of the laborer being dependent on the amount of capital already accumulated, it was seen that the amount of capital depended on the intelligence of the laborer. Inasmuch as the wages-fund theory deals with free and competing laborers, it had no real application in the slave States.

The most effective attacks on the wages-fund theory in America were by General Walker[1] and Henry George.[2] The keynote of their opinion is that the individual efficiency of the laborer determines the amount of wages, that the product of labor goes as the reward to labor under fair and free competition.

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[1] Wages. New York, 1877.

[2] Progress and Poverty. New York, 1879.

VI.—Economic Progress.

The generally favorable economic conditions, an enterprising, intelligent, versatile and self-respecting population, unlimited land capable of producing paying crops with light tillage, the mineral resources, the political freedom, the powerful influence of the church as an education in morality, in self-government, in the maintenance of high ideals and in general intelligence, the freedom from war and dangers of war—these and other influences made economic progress so easy, so natural and so inevitable, that Americans generally looked upon progress as the normal law of economic life. The dismal pessimism of the English economists, conceived during the Napoleonic era, had no place in this land, leaping by great bounds toward national wealth and power. The American school of political economy must perforce teach the advantages of growing population as well as growing capital, for increased numbers brought larger capital, change from old and ill-paying methods of agriculture and manufacture to new methods, and the invention of new and better machines; these were the occurrences of every day, and they removed into an indefinitely remote future the fear of a retrograde movement or a stationary condition. America had created a new economic world.

If it be maintained by sober critics of this American optimism that it shows crass ignorance of history to maintain that its doctrines of indefinite progress are capable of general application, two replies are possible. The first is that throughout the period of historic records so much new land has lain unappropriated and unused, so little of the now known economic resources in materials and in methods and appliances of adaptation have been exploited, that it always would have been possible for men to labor with increasing returns if they had applied the requisite intelli-

gence and had lived under the proper social order. The difficulty has always been, not a lack of natural resources, but a lack of right political regulation, and especially of economic intelligence. The real teaching of the classical economy was not merely the existence of the law of diminishing returns in agriculture and in economic effort as a whole, but the dominance of that law in fact, so that increasing population meant increasing misery. The American doctrine was the dominance of the law of increasing returns. Now, it is true that the real explanation of decreasing returns historically has been the lack of intelligence in discovery, in new methods and appliances and in organization of productive resources. At no time has the menace to social improvement been the mere increase in the numbers of the people as compared with the world's resources; it has been rather in the lack of the disposition and intelligence to make use of these resources.

The other reply in defense of the American economic doctrine is that American economic development during this century has been subject to increasing returns, has shown a different progress in the use of soils of varying fertility, has exhibited a period in which the increase of the population at its highest rate, aided by unrestricted immigration, has not brought men fast enough into the country to make the best use of its resources. The conclusion necessarily, then, is that the dominance of the law of decreasing returns is not absolute, that the Malthusian principle of population is not universally of importance, but is false as a practical guide under certain conditions. This demonstrates the relativity of economic theory, disproves the perpetualism and universality of the English system, and in these particulars does imperfectly but incontrovertibly what the great writers of the German historical school accomplished.

This similarity in tendency between American and German economic thought rests upon a certain well-marked resemblance in many features between the economic condition of the two countries during this period. Both

were agricultural countries; both found in the Napoleonic wars a stimulus to manufactures through the exclusion of English goods; both needed the rapid increase of railroads throughout the different states to promote economic and political unity, and both found in a combination of internal free trade with imperial protection a powerful stimulus to manufacturing and commercial development.

VII.—The Individual in Relation to the State.

Economic opportunity—free and equal to all—is the principle dearest to the American. This was the basis of that philosophy of freedom and equality which governed our politics in the Revolutionary time. Political equality was really one phase of that passion for economic freedom which was almost universal. And it was the fact of economic freedom, and of relatively equal economic opportunity, which gave our democracy its power. It is this freedom and equality of economic opportunity which has given our country its expansion and its internal growth—which has compelled emancipation of the slaves, and built up that general high degree of comfort throughout the country.

It was not so much that French Revolutionary philosophy moulded our thought—it was rather the actual experience by Americans of substantial equality and freedom in their industrial opportunities which determined its character. This actual experience made them adopt in part the French philosophy. We must not deceive ourselves. The same democratic passion is dominant in the United States to-day. We believe still that each man should work out his own economic salvation, that he should receive the full value of his contribution toward the new wealth created, that no classes under peculiar favor should be allowed undue economic power. We believe that each man should be allowed to cultivate his powers, to educate his children and advance his fortune to the utmost. And to this end the American still believes that equal and free economic opportunity is necessary. Nothing has happened to change this fundamental philosophy of our people. It is instinctively felt that it is this which has made us powerful.

While our country was undeveloped and sparsely settled this economic creed meant a doctrine of political *laissez faire.* Opportunity is of itself free if the government keeps its hands off.

Now conditions have changed. The entire country has been practically occupied and made accessible to development. Further, the general industrial revolution has wrought its work here as well as elsewhere—steam and electricity have transformed all methods of production and thrown our products into the general market of the world. Under such circumstances unrestricted competition leads inevitably to combination. Nowhere in the world has the tendency to great industrial combinations shown such vitality as in the United States. If the masses of the American people ever become convinced that the only way to preserve equality and freedom of economic opportunity is through the public assumption of the industries now managed by the "trusts," no country in the world will swing into state control with greater rapidity and decision. The logical outcome of the extreme individualistic philosophy in which the American republic was conceived is state control of industry—as the means of defending the individual against the aggression of overgrown combination. Some middle ground must be found if we would save America from Socialism.

VIII.—Influences Shaping American Thought.

The most powerful influence shaping early American thought in economic matters was undoubtedly the peculiar economic conditions of the country.

1. The character of the population was not the least of these conditions. While actually made up of many nationalities, the population was yet overwhelmingly British in numbers, and dominated by English ideas of law and industrial development. They belonged then to the most aggressive and pertinacious race of pioneers in the history of the world, and one, moreover, gifted with a passion for independence in political and economic matters, capable of individual initiative, but hating anarchy. The Northern settlers were seamen, handicraftsmen, small farmers and merchants, with some admixture of professional men. They brought with them all the *personnel* of a varied and complete economic civilization, and soon made it evident, in spite of the necessity for the general reliance upon agriculture, that they were capable of industrial independence. Manufactures and commerce were to flourish side by side with agriculture. In the South the population, while overwhelmingly in point of numbers belonging to the class of " poor whites," was yet controlled by the able minority of landed proprietors. A remarkable development of household manufactures took place so far as the ruder necessities of clothing were concerned, but the whole economy was built upon the necessity to maintain the aristocratic organization. If the mass of poorer whites in the South had been man for man the equal of the settlers in New England or the Middle States, it is probable that home manufactures and a lively internal trade would have grown up in the midst of the plantation system. As it was, the presence of slavery, the dominance of the aristocratic class, the overweening importance of tobacco and

cotton as export crops, and the enterprise of "Yankee" merchants in pushing their wares into Southern markets, prevented the industrial emancipation of the poorer portion of the Southern whites. Ernst von Halle[1] has shown how this resulted eventually in the downfall of the Southern system when North and South were driven to measure their strength with each other.

It thus naturally resulted from the character of the people that in the North generally the movement of thought was in favor of the building up of manufactures and a large internal commerce, of achieving a general industrial completeness and self-sufficiency, while at the South the necessity for the dominance of the great planters prevented the growth of a similar general sentiment there.

2. The isolation of America was another powerful factor. This isolation made it advantageous to develop home manufactures, thereby saving the cost of the long transportation of raw materials to Europe and the return of manufactured goods. This was different again in the South after the chief reliance was placed upon the cotton crop. They could not manufacture and they found it cheaper to buy English goods. But in all the protective literature in America, one of the most obvious assumptions underlying the arguments is that the cost of transportation is the great waste in production. If that could be reduced the nation would be more prosperous.

3. The newness and wild condition of the country was also a powerful fact impressing the imagination of Americans. Much of the English system of political economy is based upon phenomena in countries industrially old. In America different conditions compel different explanations. It is upon this fact that the opposition to the Ricardian presentation of the rent theory is based. As America grew older the progress was in reality to better paying soils and

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[1] Baumwoll-Production und Pflanzungwirthschaft in den Nord-Amerikanischen Südstaaten. Theil I. Die Sclavenzeit. Leipzig, 1897.

better paying uses of labor and capital on the old soils. Increasing returns, not decreasing returns, was the normal law of agriculture.

4. Another fact was the sparse population. The manufacturer needed larger population that labor might be cheaper, and the advantages of better adjustment and organization with increasing population were evident. The necessity for a larger home market, for manufacturing towns growing up in agricultural districts—every line of work pointed to increasing comfort for all with increasing population. The sparse population has also given strength to the emphasis placed upon association as an economic advantage.

5. Versatility of the American. This was one of the necessities of the sparse population and the unlimited economic opportunity. Specialization could not be carried far. Hence a premium was put upon intelligence. The dominant element in determining each man's reward seemed to be his ability. Out of this grew the American opposition to the wages-fund, and the explanation of wages as the product of the man's own labor.

6. Scarcity of capital and labor. This made managing skill of the highest importance. A class of undertakers thus was evolved who became unsurpassed as bold projectors and successful organizers. This scarcity likewise stimulated mechanical invention, led to the recognition by some writers of invention as a co-ordinate factor in production with capital and labor, and strengthened the tendency to regard machines as the typical form of capital.

7. Scarcity of money. This was a powerful factor in shaping American opinion upon the monetary question. Throughout the entire country in colonial days, and in many large sections of the country during our whole history, we have been on the verge of exchange by barter. This undoubted need for better facilities for exchange has kept alive always a strong party in favor of increase of the currency. This opinion has taken the form of a popu-

lar agitation for government paper money, for unrestricted issues of bank-notes, and lastly, for the free coinage of silver. It has always been a widely-spread theory because there have always been large sections of the country where there were inadequate facilities for exchange. In the days before banking there was a dearth of coin. Since the banks have taught us to use credit instruments as the common medium of exchange, the issue function being restricted necessarily to commercial banks, agricultural communities have suffered. England has been comparatively free from this trouble because English agriculture has ceased to be of great importance, and her banking system suits well her business as a commercial and manufacturing nation.

8. The system of land ownership—small holdings with title in fee, easy and cheap transfer—has made of land in this country a commercial property. It is generally regarded as a form of capital, not differing essentially from houses or ships, and thus not requiring a special place in scientific exposition. Returns on land are assimilated to interest on the capital invested. A general distrust of the whole elaborate rent doctrine of European economists thus exists in American thought. This has been strengthened by the fact that cultivators of the soil for the most part have owned their farms, and thus the necessity for distinguishing between capital put into the land and into buildings or implements has not been apparent. In striking confirmation of this view is the fact that when American economists became convinced that, whatever else might be criticised away in the classical form of the rent doctrine, the differential principle remained intact, they began to generalize the application of this principle and to apply it to the undertaker's skill, to labor, and to other forms of capital than land.

A second powerful influence in determining American economic thought has been the French individualistic philosophy. It might perhaps better be called the English individualistic philosophy, for it was the direct influence of

Locke, more than of the French writers, which is seen in the Declaration of Independence. But later, at any rate, the ideas took the French form of statement, and the French idealism was better suited to the national temperament of the American than was the English more sober speech. Even here American conditions became the controlling force. Equality—approximate equality—was imposed by the very conditions of life. It was this which made the French philosophy of natural equality so convincing. A new, fertile and boundless country, social institutions largely unformed, a population individualistic by historic extraction and the necessity of daily life—under such circumstances French democratic ideals easily became the gospel. As an industrial philosophy the chief doctrines were liberty as the essential condition of economic progress, equality of economic opportunity as a natural right, individual efficiency as the creating force and just measure of private wealth.

A protective policy, state industrial activity, may seem to contradict this. Not so, however, in a really democratic state. There the people themselves are the government, and what the government does is the act of the people. What is for the general good may safely be done by a democratic government. This would appear to be an unreasoned assumption lying at the basis of general opinion. Protection to aid particular classes—that is the undemocratic thing.

In line with the general individualistic movement, the influence of the Physiocrats and of Adam Smith is easily traced upon the thought of several of the great political leaders.

IX.—Influence of American Economic Thought.

The chief reason for our failure to make large contributions to economic science is the same reason which explains the meagreness of our contribution to general science, viz., the all-absorbing problem of making use of the advantages within our grasp. Within a century we have been compelled to work out several most difficult problems: how to unite in a solid empire many vigorous, large and discordant nationalities; how to stretch this empire over the adjacent territories, so as to remove dangerous enemies; how to get rid of slavery without disrupting the Union; how to make our general education keep pace with our growth in numbers and with the advance of science; how, with the rapidly shifting forms of industrial organization, to maintain purity of government and social order; how to govern an empire without an emperor; how to push forward material civilization without going backwards in intellectual and moral civilization; how to stimulate invention so as to win wealth for all, with inadequate labor and capital. We have not had a class of educated men with leisure and wealth enough to study for the sake of study. The lack has been, not the right quality and power of mind, but the lack of opportunity for its development.

It is easy to explain why our jurists have been greater than our economists. Law is an ancient science, and one to which Americans were forced by the circumstances of their development. It was necessary in effecting political union and in establishing a liberal constitution that the principles of private and constitutional law should be well studied. Our earlier statesmen were, for the most part, trained in legal science, and could hold their own with their brethren in England. The constitutional and political questions were kept to the front by the slavery dispute, and the economic and social obscured by this issue. It was

practically impossible before the overthrow of slavery that the deeper problems of economic life should come to the fore. In the one line of economic policy which was continually forced upon our attention—the question of the tariff—we have in reality furnished the world with the theory of protection.

Hamilton, Matthew Carey, Hezekiah Niles, and Daniel Raymond represent the earlier development in this country of the economic philosophy at the basis of the theory of protection. Smith, in treating of the wealth of nations, lays great stress upon the accumulation of capital through parsimony, because this accumulated stock, saved from present destruction, ensures a larger future wealth in the hands of individuals, and the wealth of individuals is the wealth of the state. These protectionist writers, in urging national encouragement to manufactures, were quite as practical as Smith, and more philosophical. Wealth is not so much accumulated stocks of goods, they argue, as the power of producing large income. The surest provision for the future wealth of a nation is an increase in this capacity to produce. The accumulation of values is, after all, only for the near future, but the firm establishment of manufacturing towns is a permanent provision for a larger and ever larger power of production in the remote future. If to provide for the near future is wise in the individual, to provide for the remote future as well is wise for the nation. The promotion of large wealth to the individuals of the present generation is not identical with the development of large permanent productive capacity in the nation, which does not die with this generation. Large accumulations of stock for foreign trade may be swept away by war. Manufacturing power makes the nation strong and independent in war. Our commerce was swept from the seas by war; it was the stimulated manufactures which gave us independent strength.

Smith again, showing the advantages of division of labor, the economies resulting, the more rapid accumulation of

wealth, had argued that these advantages were limited by the extent of the market—that therefore a large foreign market was necessary and to that end free trade was conducive. The American protectionists answered, the large market can be developed at home by the establishment of manufactures near the farms, and thus a new economy effected by saving the cost of transportation.

Smith's argument for free trade assumes that all mankind are friendly and homogeneous. The fact is, say the protectionists, that men live as parts in separate political unities called nations. These national structures must have vigorous life or all the parts will suffer. Manufactures are an important functional part of the independent national structure. These functional organs, when undeveloped, need special care and sustenance to make them grow to vigor. Every part of the national structure gains in the end by giving up a part of its present sustenance to develop the manufacturing branch of the body. This line of reasoning, as we have seen, was taken up by List and developed into a system which made protection to manufactures a necessary policy during a certain stage of national growth. Through List thus protectionism became a doctrine widely believed in and followed by continental Europe. It has remained in America as the really dominant theory of national growth, and to-day may be regarded as our settled policy for an indefinite future. Even England, as has been said, appears nearly ready to swing into line as a protectionist empire.

The claims of Hamilton as an economist of great and wide-reaching influence cannot be successfully denied. He is more than any other single man the originator of modern protectionism in America and in Europe.

H. C. Carey's influence has been permanent, deep and lasting, mainly in regard to the doctrines of rent, of diminishing returns, and of the growth of population. The real extent of that influence has been obscured by the failure of the most of his other teachings. He was cursed with a

fatal diffuseness of language and an uncontrolled bent toward " damnable iteration." His real argument is obscured thereby—how the intelligence of man, growing with increase of association, opens out continually new resources of better soil, of richer natural wealth, of better machinery or methods of work, so that it is possible to keep the rate of increase in production ahead of the possibilities of growth of population. If this be accepted, then Malthusianism is no longer an absolute principle, nor is the law of diminishing returns; the statement of the rent principle must be modified and general progress may be consistent with growth of population. That Carey was extreme, dogmatic and one-sided is true. But he showed the possibility and the actual existence of an economic life which the commonly received theory did not explain. Everywhere the modification of the older theory became necessary, and, owing in considerable part to his influence, the doctrines of rent, of diminishing returns, of population, and of economic progress have been generally restated.

The influence of Henry George has been much greater than professional economists are generally willing to admit, although largely an educational rather than a strictly scientific influence. He has done more in America to popularize the science of political economy than any other economist. He has imparted to several of our young economists their first impulse toward the study. His vigorous critical attacks upon the wages-fund doctrine and the Malthusian doctrine of population are the outcome of his study of American economic conditions and in line with the work of Carey and Walker. His influence in this respect is rather in putting within the reach of the masses of Americans exaggerated but not essentially untrue theories. The influence of his propaganda for the nationalization of rent has led to important results in two directions. It has on the one hand led some economists to restate the doctrine of rent so that such dire consequences might not possibly be built upon the rent doctrine, and has generally led to a

new discussion of the whole doctrine of rent, both in Europe and America. On the other hand, it has stimulated immensely the people's perception of the fact that many public franchises were being granted to private corporations without payment into the public treasury of adequate consideration. Not only Mr. George himself, in the recent mayoralty contest in New York, which caused his tragic death, stood upon a platform which asserted the wrong of granting municipal franchises to private companies without recompense, but the leader of conservative reform, Mr. Seth Low, avowed the same doctrine. This now general sentiment in the United States, no longer regarded as a dangerous doctrine, is largely the outcome of Henry George's brilliant argument for the retention in public ownership of public values.

F. A. Walker has exerted a wide influence upon the theory of wages. The fall of the wages-fund theory in England was partly due to his attacks, which so ably followed up the work of Thornton and Long. His positive theory has been not so influential, although it has received partial recognition. The central idea of his theory, that the amount of wages under free competition tends to equal the product due to the labor, has, however, been generally accepted, although not altogether as the direct result of his writing. Walker, besides, has contributed in no small degree to the body of doctrine in English-speaking countries concerning the importance of the undertaker in the productive economy. And in this work he has widened the application of the differential or rent principle in a way in accord with the best modern thought.

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IN

HISTORICAL AND POLITICAL SCIENCE
